*Zoological Record*

Vol. 91, Sect. 2, 1954

# PROTOZOA

COMPILED BY

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and R. H. CUMMINGS, Ph.D., B.Sc.

LONDON
PUBLISHED BY
THE ZOOLOGICAL SOCIETY OF LONDON

*PRICE SEVEN SHILLINGS AND SIXPENCE*
SEPTEMBER 1956

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**112.—Bonner,** J. T. The development of cirri and bristles during binary fission in the ciliate *Euplotes eurystomus*. J. Morph. **95** 1954 : 95–107 figs.

**113.—Bonorris,** J. & **Ball,** G. H. A haemogregarine from Southern California lizards. J. Protozool. **1** Suppl. 1954 : 1.

**114.—Borovitskaja,** M. P. [Comparison of the parasitic fauna of economic fishes in river Danube and its estuary. (Incl. protozoa)]. Trud. Leningr. Soc. Nat. (Zool.) **71** (4) 1952 : 10–25. [In Russian.]

**115.—Boschma,** H., **Koenigswald,** G. H. R. van, & **Vlerk,** I. M. van der. Over een manuscript van Erwin Kamptner getiteld "Coccolithinen-Skelettreste aus kreideartigen Sedimenten der Insel Rotti (Indonesien). Eine mikropalaontologische Studie." Versl. gewone Vergad. Akad. Amst. **63** (3) 1954 : 46–47.

**Bose,** A. N. *see* Ray, N. K.

**116.—Bouché,** B. J. Transmission of Kala-azar. Brit. med. J. **11** 1954 : 1417.

**Bourcart,** N. *see* Galliard, H.

**117.—Bourrelly,** P. Une nouvelle espèce de *Lagenoeca* : *Lagenoeca ruttneri*. Schweiz. Z. Hydrol. **14** 1952 : 462–464, figs.

**118.—Bovee,** E. C. *Thecamoeba* (*Amoeba*) *corrugata* n. sp. as distinct from *Thecamoeba* (*Amoeba*) *striata* Penard. Proc. Soc. Protozool. **4** 1953 : 14–15.

**119.—Bovee,** E. C. Presence of contractile vacuole in *Flabellula mira* Schaeffer in fresh water. Proc. Soc. Protozool. **4** 1953 : 15.

**120.—Bovee,** E. C. Identification of species in *Flabellula* during locomotion. Proc. Soc. Protozool. **4** 1953 : 15.

**121.—Bovee,** E. C. A small ameba of the genus *Metachaos* Schaeffer. J. Protozool. **1** Suppl. 1954 : 2–3.

**122.—Bovee,** E. C. Morphological identification of free-living Amoebida. Proc. Iowa Acad. Sci. **60** 1954 : 599–615 figs.

**123.—Bovee,** E. C. & **Adams,** B. N. Lethal infections of *Trypanosoma cruzi* in cortisone-treated white mice. J. Protozool. **1** Suppl. 1954 : 3.

**Bovell,** C. *see* Tittler, I. A.

**124.—Box,** E. D., **Gingrich,** W. D. & **Celaya,** B. L. Standardization of a curative test with *Plasmodium berghei* in white mice. J. inf. Dis. **94** 1954 : 78–83.

**125.—Bowen,** R. N. C. Quaternary foraminifera from St. John's Fjord, West Spitzbergen. Ann. Mag. nat. Hist. (12) **7** 1954 : 737–752 figs.

**126.—Bowen,** R. N. C. Foraminifera from the London Clay. Proc. Geol. Assoc. Lond. **65** 1954 : 125–174 figs.

**127.—Boyd,** J. S. K., **Buxton,** P. A., **Covell,** G., **Fairley,** N. H., **Garnham,** P. C. C., **Lethwaite,** R., **Macdonald,** G., **Maegraith,** B. G., **Pridie,** E. & **Hawking,** F. Recommendations on the use of antimalarial drugs. Brit. med. J. II **1954** : 148–150.

**128.—Boyer,** J. Un parasite des alevins de sardine. [Dinoflagellate]. Nature, Paris No. 3230 **1954** : 234–235 figs.

**Braccini,** L. *see* Buonomini, G.

**129.—Bradin,** *jr.*, J. L. & **Kun,** E. Studies on biological oxidation in cultures of *Endamoeba histolytica*. Proc. Soc. Protozool. **4** 1953 : 8.

**130.—Brand,** T. von. Influence of starvation of *Tenebrio molitor* larvae on their Gregarines. G. S. Thapar Commemoration Volume, Lucknow, 1953 : 9–12.

**131.—Brand,** T. von. Further studies on arsenic resistance in *Trypanosoma gambiense*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 426–430.

**132.—Brand,** T. von & **Mercado,** T. I. Studies on glycogen synthesis in white rats infected with *Plasmodium berghei*. J. Parasit. **40** 1954 : Suppl. 23.

**133.—Brand,** T. von, **Weinbach,** E. C. & **Tobie,** E. J. The metabolism of culture form of *Trypanosoma gambiense*. J. Parasit. **40** 1954 : Suppl. 20.

**Brand,** T. von *see* Agosin, M.

**Brand,** T. von *see* Mercado, T. I.

**134.—Brandes,** C. H. Über die räumlichen und zeitlichen Unterschiede in der Zusammensetzung des Ostseeplanktons. Mitt. hamburg. zool. Mus. **48** 1939 : 1–47 figs.

**135.—Braslavskaja,** E. P. [Biological criterion of phylogenetic relations in *Euglena*]. Bull. Soc. Nat. Moscou **59** (4) 1954 : 61–66 figs. [In Russian.]

**136.—Bray,** R. S. On the coccidia of the mongoose. Ann. trop. Med. Parasit. **48** 1954 : 405–415 figs.

**137.—Bray,** R. S. The mosquito transmission of *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 263–274.

**138.—Bray,** R. S. The tissue phase of malaria parasites. J. trop. Med. Hyg. **57** 1954 : 41–52 figs.

**Bray,** R. S. *see* Garnham, P. C. C.

**Bray,** R. S. *see* Shortt, H. E.

**Breese,** W. *see* Davison, R. C.

**139.—Brejer,** H. B. G. Double infection of an erythrocyte with *Plasmodium malariae*. Doc. Med. geogr. trop. **6** 1954 : 288 fig.

**140.—Breijer,** H. B. G. Dubbele infectie van een erythrocyt met *Plasmodium malariae*. Nederl. Tijdschr. Geneesk. **98** (ii) 1954 : 1440–1442.

**141.—Brent,** M. M. Nutritional studies on the amoebo-flagellate, *Tetramitus rostratus*. Biol. Bull., Woods Hole **106** 1954 : 269–278 fig.

**Brent,** M. *see* Balamuth, W.

**142.—Bringmann,** G. & **Holz,** J. Die Bewegungsorganellen des *Toxoplasma gondii*. Z. Tropenmed. Parasit. **5** 1954 : 54–57 figs. [English summary.]

**143.—Briones,** S. & **Romaña,** C. Xenodiagnosticos de sondeo practicados en diversas regiones del pais. An. Inst. Med. reg., Tucuman **4** 1954 : 43–45. [French summary.]

**Briones,** S. *see* Romaña, C.

**Brodie,** J. W. *see* Wellmann, H. H.

**144.—Brönnimann,** P. Upper Cretaceous Orbitoidal Foraminifera from Cuba. Part I. *Sulcorbitoides* n. gen. Contr. Cushman Fdn. **5** (2) 1954 : 55–61 figs.

**145.—Brönnimann,** P. Upper Cretaceous Orbitoidal Foraminifera from Cuba. Part II. *Vaughanina* Palmer 1934. Contr. Cushman Fdn. **5** (3) 1954 : 91–105 figs.

**146.—Brönnimann,** P. News-West Indies [Foraminifera]. Micropaleontologist **8** (1) 1954 : 4–6.

**147.—Brönnimann,** P. & **Brown,** N. K. Synonyms of *Gublerinas*. Contr. Cushman Fdn. **5** (2) 1954 : 62.

**Brönnimann,** P. *see* Todd, R.

**148.—Brooke,** M. M. The laboratory diagnosis of toxoplasmosis. Offic. Bull. Confer. Publ. Hlth. Directors (U.S.A.) **12** (5) 1954 : 109–112.

**149.—Brooke,** M. M., **Donaldson,** A. W. & **Brown,** E. An amebiasis survey in a veteran administration hospital, Chamblee, Georgia, with comparison of technics. Amer. J. trop. Med. Hyg. **3** 1954 : 615–620.

**Brooke,** M. M. *see* Norman, L.

**Brookman,** B. *see* Reeves, W. C.

**150.—Brothers,** R. N. The relationship of Waitemata formation and the Manukau Breccia, Auckland, New Zealand. [Foraminifera]. Trans. roy. Soc. N.Z. **81** 1954 : 521–538 figs.

**Brown,** E. *see* Brooke, M. M.

**Brown,** E. M. *see* Hovasse, R.

**151.—Brown,** H. P. & **Cox,** A. An electron microscope study of protozoan flagella. Amer. Midl. Nat. **52** 1954 : 106–117 figs.

**152.—Brown,** J. A. H. & **Whitby,** J. L. Investigation into the serological diagnosis of amoebic dysentery. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 279.

**Brown,** J. A. *see* Moore, E. N.

**Brown,** N. K. *see* Brönnimann, P.

**Brownell,** L. E. *see* Elliott, A. M.

**153.—Browning,** C. H. The chemotherapy of trypanosome infections. Ann. N.Y. Acad. Sci. **59** (2) 1954 : 198–213.

**154.—Brož,** O. & **Kulda,** J. *Dermosporidium multigranulare* n. sp. a new parasite of the skin of *Rana esculenta*. Acta Soc. zool. Bohemoslov. [Czech with English summary]. **18** 1954 : 91–97 figs.

**155.—Bruce-Chwatt,** L. J. *Plasmodium berghei* in the placenta of mice and rats : transmission of specific immunity from mother rats to litters. Nature, London **173** 1954 : 353–354.

**156.—Bruce-Chwatt,** J. *Plasmodium berghei* in the placenta of rats. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 11.

**157.—Bruce-Chwatt,** L. J. Field studies of some of the basic factors concerned in the transmission of malaria. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 188–189.

**158.—Brumpt,** L. C. & **Vũ-Cong-Hoe.** Contribution à l'étude du cycle sporogonique du *Plasmodium falciparum*. Extrême-Orient méd. **5** 1952 : 78–80. [English summary.]

**Bruneau,** J. *see* Blanc, G.

**159.—Bucco,** G. & **Chieffi,** G. Sulle varieta morfologiche di *Entamoeba histolytica*. I. Diametro delle cisti. Riv. Parassit. **15** 1954 : 279–284 figs.

**160.—Büren,** G. V. Der Geistsee. [Protozoa]. Mitt. naturf. Ges. Bern N.F. **9** 1952 : 1–51 figs.

**Bunt,** J. S. *see* Tchan, Y. I.

**161.—Buonomini,** G., **Blasi,** R. De & **Ricciardi,** M. L. Studi sulla biologia di *E. histolytica* : (1) Osservazioni e rilievi sulla coltivazione di stipiti autoctoni. Riv. Parassit. **15** 1954 285–304.

**162.—Buonomini,** G. & **Braccini,** L. Su la diagnosi parassitologica di amebiasi. Nota II. Riv. Ital. Igiene **14** 1954 : 6–23. [English summary.]

**Burbanck,** M. P. *see* Burbanck, W. D.

**163.—Burbanck,** W. D., **Driver,** C. H. & **Burbanck,** M. P. Aceto-carmine-lactophenol preparations of *Paramecium aurelia*. Stain Technol. **27** 1952 : 193–195 figs.

**Burgess,** R. W. *see* Jeffery, G. M.

**164.—Burrows,** R. B. Intestinal parasitic infections in military food handlers. [Incl. protozoa]. U.S. Forces med. J. **5** 1954 : 77–82.

**165.—Burrows,** R. B., **Swerdlow,** M. A., **Frost,** J. K. & **Leeper,** C. K. Pathology of *Dientamoeba fragilis* infections of the appendix. Amer. J. trop. Med. Hyg. **3** 1954 : 1033–1039 figs.

**166.—Bursa,** A. On the genus *Prorocentrum* Ehrenberg 1883. J. Protozool. **1** Suppl. 1954 : 11.

**167.—Bursch,** J. G. News-Venezuela. [Foraminifera]. Micropaleontologist **8** (3) 1954 : 3–6.

**168.—Bursch,** J. G. News-Venezuela. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 4–6.

**169.—Butskaja,** N. A. [Parasitic fauna of Black Sea economic fishes in the estuarian area of Danube. (Incl. protozoa)]. Trud. Leningr. Soc. Nat. (Zool.) **71** (4) 1952 : 30–52 figs. [In Russian].

**Buttner,** A. *see* Galliard, H.

**170.—Buttrey.** B. W. Variations in *Tritrichomonas augusta*-like Trichomonads of Amphibia. Proc. Soc. Protozool. **4** 1953 : 6–7.

**171.—Buttrey,** B. W. Morphological variations in *Tritrichomonas augusta* (Alexeieff) from amphibia. J. Morph. **94** 1954 : 125–163 figs.

**Buxton,** P. A. *see* Boyd, J. S. K.

**172.—C.,** G. Giovanni Battista Grassi : born March 27, 1854. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 369–372.

**173.—Cachon,** J. Morphologie et cycle évolutif de *Diplomorpha paradoxa* (Rose et Cachon). Péridinien parasite des Siphonophores. Bull. Soc. zool. Fr. **78** 1954 : 408–414 figs.

**174.—Caine,** R. L. A morphologic and taxonomic study of the enteric Protozoa of leeches. J. Protozool. **1** Suppl. 1954 : 9.

**Caldas,** J. M. *see* Castro, F. T. de.

**Callender,** M. E. *see* McCowen, M. C.

**175.—Camacho,** H. H. Some Upper Cretaceous foraminifera from Argentina. Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

**Cameron,** L. E. *see* Wingo, W. J.

**176.—Campbell,** J. J. R. Metabolism of micro-organisms. Annu. Rev. Microbiol. **8** 1954 : 71–104 figs.

**177.—Canning,** E. U. A microsporidian infecting the African migratory locust, *Locusta migratoria migratorioides* R. and F. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 280.

**178.—Cantrell,** W. The effect of oxophenarsine on the phosphate metabolism of *Trypanosoma equiperdum* in the rat. J. inf. Dis. **95** 1954 : 92–97 fig.

**Cao-Pinna,** M. *see* Capocaccia, L.

**179.—Capocaccia,** L. & **Cao-Pinna,** M. La coltivazione della *Entamoeba histolytica* in presenza di due sole specie batteriche. Arch. Ital. Sci. med. trop. Parassit. **35** 1954 : 55–61. [English summary.]

**180.—Capocaccia,** L. & **Cao-Pinna,** M. Technica per la conta della *Entamoeba histolytica* nelle colture. Arch. Ital. Sci. med. trop. Parassit. **35** 1954 : 62–65. [English summary.]

**181.—Capocaccia,** L. & **Cao-Pinna,** M. Un terreno a base di uovo, fegato ed agar per la coltivazione dell' *Entamoeba histolytica*. Arch. Ital. Sci. med. trop. Parassit. **35** 1954 : 131–133. [English summary.]

**182.—Capocaccia,** L. & **Cao-Pinna,** M. Influenza della polvere di riso sottoposta a diverse temperature sulle colture di *Entamoeba histolytica*. Arch. Ital. Sci. Med. trop. Parassit. **35** 1954 : 215–222. [English summary.]

**183.—Carozzi,** A. Contribution à l'étude des rythmes de sédimentation. Première partie. [Foraminifera]. Arch. Sci., Genève **3** (1–2) 1950 : 17–40, 95–146 figs.

**184.—Carozzi,** A. Presénce et importance du genre *Nodophthalmidium* dans le Jurassique supérieur helvétique et jurassien. Arch. Sci., Genève **6** (2) 1953 : 85–89 fig.

**185.—Carozzi,** A. Données micrographiques sur la Crétacé supérieur Helvétique. (Autochtone, nappes de Morches et du Wildhorn). [Foraminifera]. Bull. Inst. nat. genevois **56** 1953 : 75–150 figs.

**Carozzi,** A. *see* Paréjas, E.

**186.—Carrescia,** P. M. & **Negroni,** G. Infezioni da *Plasmodium berghei* in ratti splenectomizzati e mantenuti a dieta lattea. Riv. Malariol. **33** 1954 : 261–272. [English summary.]

**Carrescia,** P. M. *see* Raffaele, G.

**Carsted,** K. W. *see* Nathan, H. A.

**Carter,** R. D. *see* Moore, E. N.

**187.—Carvalho,** J. de P. Sôbre a ocorrencia de *Prorocentrum sigmoides* Bôhm no planton do Canal de Santos (E. de S. Paulo-Brasil). Dusenia **4** (1) 1953 : 27–36 fig. [English summary.]

**188.—Castro,** F. T. de & **Caldas,** J. M. Uma tecnica de isolamento de protozoários em culturas axênicas. An. Acad. Brasil. Cienc. Rio **26** (2) 1954 : ii–iii.

**189.—Castro,** F. T. & **Couciero,** A. Coloração vital de protozoários. An. Acad. Brasil. Cienc. Rio **26** (2) 1954 : vii–viii.

**Caughey,** P. A. *see* Nanney, D. L.

**190.—Caullery,** M. Appendice aux Sporozoaires : classe des Haplosporidies (Haplosporidia Caullery et Mesnil, 1901). In : Traité de Zoologie, Paris **1** (2) 1953 : 922–923 figs.

**191.—Čechovič,** V. [Caractère géologique du Miocène subkarpathique de la Slovaquie]. [Foraminifera]. Geol. Sborn. Slovensk. Akad. v. u. Bratislava **1** 1950 204–224. [French summary.]

**192.—Čečina.** A. S. [Diseases of pond fishes in U.S.S.R. during the post-war years. (Incl. protozoa)]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 39–42. [In Russian.]

**Celaya,** B. L. *see* Box, E. D.

**Chandler,** A. H. *see* Weinman, D.

**Chandrasekhar,** G. R. *see* Jaswant Singh.

**193.—Chao,** P. K. Kappa concentration per cell in relation to the life cycle, genotype and mating type in *Paramecium aurelia*, variety 4. Proc. nat. Acad. Sci., Wash. **39** 1953 : 103–113 fig.

**194.—Chak,** I. M. & **Kar,** A. E. The effect of estradiol dipropionate on the development of *Trypanosoma equiperdum* in rats and mice. J. sci. industr. Res., Delhi **13 B** 1954 : 480–484.

**195.—Champion,** L. R. The inheritance of resistance to cecal coccidiosis in the domestic fowl. Poultry Sci. **33** 1954 : 670–681 fig.

**196.—Chandler,** A. C. A comparison of helminthic and protozoa infections in two Egyptian villages two years after the installation of sanitary improvements in one of them. Amer. J. trop. Med. Hyg. **3** 1954 : 59–73.

**197.—Chaoulitch,** S. P. *Leishmania donovani* (Laveran et Mesnil, 1903) parasite aussi les érythrocytes. Bull. Soc. Path. exot. **47** 1954 : 244–246 figs.

**198.—Chaoulitch,** S. P. Sur une reproduction multiple de *Leishmania donovani* (Laveran et Mesnil, 1903). Bull. Soc. Path. exot. **47** 1954 : 246–248 figs.

**199.—Chardez,** D. Les protozoaires d'eaux douces stagnantes. Rev. verviét. Hist. nat. **11** (7–10) 1954 : 74–86 figs.

**200.—Chardome,** M. & **Peel,** E. Etude expérimentale d'une souche appelée *T. congolense* var. *berghei* transmise par *Glossina brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 311–320 figs.

**Chardome,** M. *see* Berghe, L. van den.

**Chardome,** M. *see* Peel, E.

**201.—Chatton,** E. Classe des Lobosa Leidy, 1879. Ordre des Amoebiens nus ou Amoebaea. In : Traité de Zoologie, Paris **1** (2) 1953 : 5–91 figs.

**202.—Chaudhuri,** A. & **Biswas,** B. Recent perforate foraminifera from Juhu Beach, Bombay. Micropaleontologist **8** (4) 1954 : 31–32.

**203.—Chaudhuri,** R. N. Tropical medicine—past, present and future. [Protozoal diseases]. Brit. med. J. II **1954** : 423–430.

**Chaudhuri,** R. N. *see* Dutta B. N.

**Chaudhuri,** R. N. *see* Sen Gupta, P. C.

**Chayen,** J. *see* Davies, H. G.

**204.—Chernin,** E. & **Weller,** T. H. Further observations on the growth of *Toxoplasma gondii* in roller tube tissue cultures. J. Parasit. **40** 1954 : Suppl. 21.

**205.—Chernin,** E, & **Weller,** T. H. Serial propagation of *Toxoplasma gondii* in roller tube cultures of mouse and of human tissues. Proc. Soc. exp. Biol. Med. **85** 1954 : 68–72 figs.

**206.—Chernin,** I. Problems in tropical public health among workers at a jute mill near Calcutta. I. Malaria in the labour population. Amer. J. trop. Med. Hyg. **3** 1954 : 74–93.

**207.—Chernin,** I. Problems in tropical public health among workers at a jute mill near Calcutta. II. A study of intestinal parasites in the labour force. [Incl. protozoa]. Amer. J. trop. Med. Hyg. **3** 1954 : 94–106.

**208.—Chernin,** I. Problems in tropical public health among workers at a jute mill near Calcutta. III. Intestinal parasites in the European supervisory staff and their food-handler servants. [Incl. protozoa]. Amer. J. trop. Med. Hyg. **3** 1954 : 107–111.

**209.—Chernov,** A. A. [The stratigraphical importance of some groups of Paleozoic invertebrates in the light of publications of Paleontological Institute of the Academy of Science, U.S.S.R.]. [Foraminifera]. Bull. Soc. Nat. Moscow, Geol. **29** (3) 1954 : 37–47. [In Russian].

**210.—Cheylan,** G. & **Magne,** J. Observations nouvelles sur le Jurassique et la Crétacé de la région de Lalla Aouda (Feuille Orléansville, Algérie). [Foraminifera]. Bull. Soc. Hist. nat. Afr. N. **45** (3–4) 1954 : 170–178 figs.

**Chibalitch,** D. *see* Simitch, T.

**Chieffi,** G. *see* Bucco, G.

**Chow,** T. L. *see* Davis, C. L.

**Christensen,** E. *see* Giese, A. C.

**Christian,** H. H. *see* Honigberg, B. M.

**211.—Christl,** H. Ueber das Vorkommen einer *Trichomonas* sp. im Darm des Rindes bei chronischen Durchfällen. Tierärztl. Umschau **8** 1953 : 205–208 figs.

**212.—Christl,** H. *Trichomonas enteris* n. sp., eine Trichomonade aus dem Darm des Rindes. Z. Parasitenk. **16** 1954 : 363–372 figs.

**213.—Cirillo,** V. P. Adaptive phenomena in *Polytoma obtusum*. Proc. Soc. Protozool. **4** 1953 : 11.

**214.—Ciry, R.** & **Rat,** P. Description d' un nouveau genre de Foraminifère : *Simplorbitolina manasi* nov. gen., nov. sp. Bull. sci. Bourgogne **14** 1954 : 85–100 figs.

**215.—Citri,** N. & **Grossowicz,** N. The function of blood in the cultivation of *Trypanosoma cruzi*. Bull. res. Counc. Israel **4** 1954 : 210.

**216.—Citri,** N. & **Grossowicz,** N. A liquid medium for the cultivation of *Trypanosoma cruzi*. Nature, London **173** 1954 : 1100–1101.

**217.—Clayton** *jr.*, J. P. & **Ball,** G. H. Failure of *Endamoeba gingivalis* to grow in culture in absence of multiplying bacteria. Proc. Soc. Protozool. **4** 1953 : 7.

**218.—Clayton,** *jr.*, J. P. & **Ball,** G. H. Effects of penicillin on *Endamoeba gingivalis* in cultures with bacteria from the human mouth. J. Parasit. **40** 1954 : 347–352.

**219.—Clayton,** *jr.* J. W. Patterns of mitosis in the genus *Spironympha*. J. Protozool. **1** Suppl. 1954 : 5–6.

**220.—Clayton,** *jr.*, J. W. Defaunation studies on the protozoa of *Reticulitermes flavipes*. J. Protozool. **1** Suppl. 1954 : 6.

**Clecner,** B. *see* Bonciu, G.

**221.—Cleveland,** L. R. Hormone-induced sexual cycles of flagellates. VIII. Meiosis in *Rhynchonympha* in one cytoplasmic and two nuclear divisions followed by autogamy. J. Morph. **91** 1952 : 269–323 figs.

**222.—Cleveland,** L. R. Hormone-induced sexual cycles of flagellates. IX. Haploid gametogenesis and fertilization in *Barbulanympha*. J. Morph. **93** 1953 : 371–403 figs.

**223.—Cleveland,** L. R. Hormone-induced sexual cycles of flagellates. X. Autogamy and endomitosis in *Barbulanympha* resulting from interruption of haploid gametogenesis. J. Morph. **95** 1954 : 189–212 figs.

**224.—Cleveland,** L. R. Hormone-induced sexual cycles of flagellates. XI. Reorganization in the zygote of *Barbulanympha* without nuclear or cytoplasmic division. J. Morph. **95** 1954 : 213–235 figs.

**225.—Cleveland,** L. R. Hormone-induced sexual cycles of flagellates. XII. Meiosis in *Barbulanympha* following fertilization, autogamy, and endomitosis. J. Morph. **95** 1954 : 557–619 figs.

**Cloud,** P. E. *jr. see* Todd, R.

**226.—Clyde,** D. F. & **Shute,** G. T. Resistance of East African varieties of *Plasmodium falciparum* to pyrimethamine. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 495–500.

**Coatney,** G. R. *see* Greenberg, J.

**Coatney,** G. R. *see* Highman, B.

**Coatney,** G. R. *see* Myatt, A. V.

**Coatney,** G. R. *see* Nadel, E. M.

**227.—Coda,** D., **Ferreira Pontes,** J. & **Coda,** M. de M. Malaria por transfusão de sangue. Folia clin. biol., S. Paulo **22** 1954 : 105–112. [English summary.]

**Coda,** M. de M. *see* Coda, D.

**228.—Cohen,** A. L. The isolation and culture of opsimorphic organisms. I. Occurrence and isolation of opsimorphic organisms from soil and culture of Acrasieae on a standard medium. Ann. N. Y. Acad. Sci. **56** (5) 1953 : 938–943.

**Cohen,** A. L. *see* Sobels, J. C.

**Cohly,** M. A. *see* Rao, R. R.

**Colaço,** A. T. F. *see* Fraga de Azevedo, J.

**229.—Colas-Belcour,** J. A propos de l'absence d'immunité croisée entre les spirochètes récurrents et *Plasmodium berghei* chez la souris. Bull. Soc. Path. exot. **47** 1954 : 639.

**230.—Colas-Belcour,** J. & **Vervent,** G. Sur des infections mixtes de la souris à spirochètes récurrents et *Plasmodium berghei*. Bull. Soc. Path. exot. **47** 1954 : 493–497.

**231.—Cole,** C. R., **Sanger,** V. L., **Farrell,** R. L. & **Kornder,** J. D. The present status of toxoplasmosis in veterinary medicine. North Amer. Vet. **35** 1954 : 265–270.

**232.—Colom,** G. News-Spain. [Foraminifera]. Micropaleontologist **8** (3) 1954 : 12–13.

**233.—Colom,** C. Distribution of *Globigerina inflata* d'Orbigny. Micropaleontologist **8** (3) 1954 : 48–49 figs.

**234.—Conkin,** J. E. *Hyperammina kentuckyensis* n. sp. from the Mississippian of Kentucky, and discussion of *Hyperammina* and *Hyperamminoides*. Contr. Cushman Fdn. **5** (4) 1954 : 165–169 figs.

**235.—Cook,** A. R. The gametocyte development of *Leucocytozoon simondi*. Proc. helminth. Soc. Washington **21** 1954 : 1–9.

**Cook,** M. K. *see* Jacobs, L.

**236.—Cooley,** N. R. The influence of aureomycin, polymyxin B and terramycin upon population growth of *Tetrahymena pyriformis* strain W. J. Protozool. **1** Suppl. 1954 : 7.

**237.—Cooley,** N. R. The influence of bacitracin, chloramphenicol and neomycin upon population growth of *Tetrahymena pyriformis*, strain W. J. Protozool. **1** Suppl. 1954 : 14.

**Cooper,** W. *see* Garnham, P. C. C.

**Cooper,** W. *see* Shortt, H. E.

**238.—Corbett,** J. J. Formation of thiamine by *Chilomonas paramecium*. J. Protozool. **1** Suppl. 1954 : 12.

**239.—Corliss,** J. O. Review of the genus *Colpidium* Stein, 1860 (Family Tetrahymenidae). Proc. Soc. Protozool. **4** 1953 : 3–4.

**240.—Corliss,** J. O. " Naturally occurring " cases of homopolar doublets in *Tetrahymena pyriformis*. Proc. Soc. Protozool. **4** 1953 : 4.

**241.—Corliss,** J. O. The ciliated protozoan *Tetrahymena pyriformis* (alias " *Colpidium striatum* "). Carolina Tips **17** 1954 : 5.

**242.—Corliss,** J. O. The buccal apparatus and systematic status of *Glaucoma frontata* (" *Dallasia frontata* Stokes "). J. Morph. **94** 1954 : 199–219 figs.

**243—Corliss,** J. O. The published works of Lorande Loss Woodruff. J. Protozool. **1** 1954 : 7–10 figs.

**244.—Corliss,** J. O. The literature on *Tetrahymena* ; its history, growth, and recent trends. J. Protozool. **1** 1954 : 156–169 figs.

**245.—Corliss,** J. O. Dr. Penard and America. J. Protozool. **1** 1954 : 191.

**246.—Corliss,** J. O. Review of the genus *Glaucoma* Ehrenberg, 1830. (Family Tetrahymenidae). J. Protozool. **1** Suppl. 1954 : 1.

**247.—Corliss,** J. O. Necrology (1940–1954) of distinguished American contributors to protozoology. J. Protozool. **1** Suppl. 1954 : 10–11.

**248.—Corliss,** J. O. Necrology (1940–1954) of distinguished European contributors to protozoology. J. Protozool. **1** Suppl. 1954 : 11.

**249.—Corradetti,** A. L'opera protozoologica di Battista Grassi alla luce degli odierni sviluppi della scienza. Riv. Parassit. **15** 1954 : 190–199.

**250.—Corradetti,** A., **Tentori,** L. & **Verolini,** F. Osservazioni sull' infezione da *Plasmodium berghei* in ratti tenuti a dieta lattea. Riv. Parassit. **15** 1954 : 121–125. [English summary.]

**251.—Corradetti,** A., **Toschi,** G. & **Verolini,** F. Comportamento dei componenti proteici del siero durante l'attacco primario nei ratti infetti da *Plasmodium berghei*. Riv. Parassit. **15** 1954 : 141–150 fig. [English summary.]

**252.—Corradetti,** A. & **Verolini** F. Relazioni patologico-immunitarie tra parassita e ospite in *Macacus rhesus* inoculati con sangue infetto da *Plasmodium cynomolgi*, successivamente splenectomizzati e ripetutamente reinfettati con cepo omologo. Riv. Parassit. **15** 1954 : 65–79. [English summary.]

**253.—Corradetti,** A., **Verolini,** F. & **Toschi,** G. Pathological and immunological host-parasite relationships between albino rat and *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 391–394.

**254.—Cosgrove,** W. B. Acid production in cultures of *Crithidia fasciculata*. J. Protozool. **1** Suppl. 1954 : 1–2.

**Costa Faro,** M. da *see* Fraga de Azevedo, J.

**255.—Costa Maiá,** C. da. Aspectos tropicais da patologiá madeirense. (Parasitoses intestinais : incidência e endemicidade). [Amoebiasis and balantidiosis]. An. Inst. Med. trop., Lisbon **9** 1952 [1954] : 1061–1072.

**256.—Costa Maiá,** C. da. Amibíase intestinal na ilha da Madeira. (Sua expressão clínica e laboratorial. Conceito etio-patogénico). An. Inst. Med. trop., Lisbon **9** 1952 [1954] : 1429–1437.

**257.—Cotronei,** G. Lo spirito scientifico di Battista Grassi. Riv. Parassit. **15** 1954 : 177–189 Portrait.

**Couceiro,** A. *see* Castro, F. J. de.

**258.—Coutinho,** J. O. Nota sôbre a imunidade adquirida na leishmaniose da cobaia—*Leishmania enriettii* Muniz e Medina, 1948. Folia clin. biol., S. Paulo **21** 1954 : 15–18.

**259.—Coutinho,** J. O. Observações sôbre a vacinação preventiva com leptomonas mortas na leishmaniose espontânea da cobaia : *Leishmania enriettii*. Folia clin. biol., S. Paulo **21** 1954 : 321–326

**Coutts,** W. E. *see* Silva-Inzunza, E.

**Coutts,** W. R. *see* Silva-Inzunza, E.

**260.—Covell,** G. A note on protracted incubation and late relapse in *vivax* malaria. J. trop. Med. Hyg. **57** 1954 : 151–153.

**Covell,** G. *see* Boyd, J. S. K.

**Cowperthwaite,** J. *see* Nathan, H. A.

**Cox,** A. *see* Brown, H. P.

**Coy,** N. H. *see* Stauber, L. A.

**261.—Craig,** G. Y. The palaeoecology of the Top Hosie Shale (Lower Carboniferous) at a locality near Kilsyth. [Foraminifera]. Quart. J. Geol. Soc. London **110** 1954 : 103–119 figs.

**Cramer,** D. I. *see* Gustafson, P. V.

**262.—Cramp,** A. C. A protozoan parasite of the warty newt. Microscope **9** 1953 : 182–183 figs.

**263.—Crespin,** I. News—Australia. [Foraminifera]. Micropaleontologist **8** (1) 1954 : 22–23.

**264.—Crisp,** J. D. G. & **Wilkins,** J. H. Laboratory diagnosis of dourine in horses. J.R. Army Vet. Corps **25** 1954 : 10–20.

**265.—Crowther,** S., **Fulton,** J. D. & **Joyner,** L. P. The metabolism of *Leishmania donovani* in culture. Biochem. J. **56** 1954 : 182–185 fig.

**Crump,** L. M. *see* Singh, B. N.

**266.—Cuvillier,** J. News-France [Foraminifera]. Micropaleontologist **8** (3) 1954: 11.

**267.—Dalma,** J. & **Scheffels,** E. L. Investigaciones sobre la accion de la temperatura en cultivos de *Schizotrypanum cruzi*. An. Inst. Med. reg., Tucuman **4** 1954 : 61–69. [French summary.]

**268.—Daniels,** E. W. Cell division in *Pelomyxa carolinensis* following X-irradiation and experimental fusion with non-irradiated cell portions. Proc. Soc. Protozool. **4** 1953 : 3.

**269.—Daniels,** E. W. Effects of X-rays on survival and cell division in the giant amoeba, *Pelomyxa illinoisensis*. J. Protozool. **1** Suppl. 1954 : 3.

**270.—Daniels,** E. W. Therapeutic effects of non-irradiated protoplasm after microinjection into lethally X-irradiated *Pelomyxa illinoisensis* cells. J. Protozool. **1** Suppl. 1954 : 3.

**271.—Das Gupta,** N. N., **Guha,** A. & **De,** M. L. Observations on the structure of *Leishmania donovani*, the Kala-Azar parasite. Exp. Cell Res. **6** 1954 : 353–360 figs.

**Das Gupta,** N. N. *see* Dutta, B. N.

**272.—Dass,** C. M. S. Studies on the nuclear apparatus of peritrichous ciliates. Part II. The nuclear apparatus of *Carchesium spectabile* Ehrbg. Proc. nat. Inst. Sci. India **20** 1954 : 174–186 figs.

**Dass,** C. M. S. *see* Seshachar, B.R.

**David,** A. *see* Jaswant Singh.

**Davidson,** G. *see* Draper, C. C.

**273.—Davies,** H. G., **Wilkins,** M. H. F., **Chayen,** J. & **La Cour,** L. F. The use of the interference microscope to determine dry mass in living cells and as a quantitative cytochemical method. [Protozoa]. Quart. J. micr. Sci. **95** 1954 : 271–304 figs.

**274.—Davis,** C. L., **Chow,** T. L. & **Gorham,** J. R. Hepatic coccidiosis in mink. Vet. Med. **48** 1953 : 371–373, 375 figs.

**275.—Davison,** R. C., **Breese,** W. & **Katz,** M. The hemoflagellate, *Cryptobia salmositica*, in Oregon salmon. J. Parasit. **40** 1954 : 703–704.

**De,** M. L. *see* Das Gupta, N. N.

**De,** M. L. *see* Dutta, B. N.

**276.—Deane,** L. M. & **Deane,** M. P. Encontro de leishmanias nas visceras e na pele de uma raposa, em zona endêmica de Calazar, nos arredores de Sobral, Ceara. Hospital **45** 1954 : 419–421 fig. [English summary.]

**277.—Deane,** L. M. & **Deane,** M. P. Encontro de cães naturalmente infetados por *Leishmania donovani* no Ceara. Hospital **45** 1954 : 703–707.

**Deane,** L. M. *see* Deane, M. P.

**278.—Deane,** M. P. & **Deane,** L. M. Infecção natural do *Phlebotomus longipalpis* por Leptomonas, provavelmente de *Leishmania donovani*, em um foco de Calazar, no Ceara. Hospital **45** 1954 : 697–702.

**Deane,** M. P. *see* Deane, L. M.

**279.—Deckart,** M. Schiefe Beleuchtung (Schiefe Hellfeldbeleuchtung, vereint mit Dunkelfeldbeleuchtung) [*Carchesium*]. Mikrokosmos **44** 1954: 64–65 figs.

**280.—Deckart,** M. Eine reichhaltige Lebensgemeinschaft im Moor [Protozoa]. Mikrokosmos **43** 1954 : 257–260 figs.

**281.—Deckart,** M. & **Löfflath,** K. Ein Parasit auf *Hydra*. [Flagellate]. Mikrokosmos **43** 1954 : 202–203.

**282.—Décloitre,** L. Mission A. Villiers au Togo et au Dahomey (1950). XXIII. Rhizopodes. Bull. Inst. franç. Afr. noire **16A** (1) 1954 : 89–125 figs.

**283.—Décloitre,** L. Contribution à l'étude du peuplement de la Mauritanié. Rhizopodes thécamoebiens. Bull. Inst. franç. Afr. noire **16A** (2) 1954 : 298–413 figs.

**284.—Décloitre,** L. Biostatistique, biogeógraphie et Thécamoebiens d'A.O.F. Bull. Inst. franç. Afr. noire **16A** (2) 1954 : 414–437 figs.

**285.—Décloitre,** L. Thécamoebiens d'une source d'eau chaude de Guiné. Bull. Inst. franç. Afr. noire **16A** (3) 1954 : 829–833.

**286.—Décloitre,** L. Biométrie et Thécamoebiens d'A.O.F. Bull. Inst. franç. Afr. noire **16A** (3) 1954 : 834-847 figs.

**287.—Decourt,** P. Activité narcobiotique de derivés de la phénothiazine et son importance thérapeutique. [Ciliates]. C.R. Acad. Sci., Paris **236** 1953 : 1195–1197.

**288.—Deflandre,** G. Ordres des Aconchulina de Saedeler, Athalamia Haeckel. In : Traité de Zoologie, Paris **1** (2) 1953 : 92–96 figs.

**289.—Deflandre,** G. Ordres des Testacealobosa (de Saedeler, 1934), Testaceafilosa (de Saedeler, 1934), Thalamia (Haeckel, 1862) ou Thécamoebiens (*auct.*) (Rhizopoda Testacea). In : Traité de Zoologie, Paris **1** (2) 1953 : 97–148 figs.

**290.—Deflandre,** G. Radiolaires fossiles. In : Traité de Zoologie, Paris **1** (2) 1953 : 389–436 figs.

**291.—Deflandre,** G. Héliozoaires fossiles. In : Traité de Zoologie, Paris **1** (2) 1953 : 487–491 figs.

**292.—Deflandre,** G. Eugène Penard (1855–1954), sa vie et son oeuvre. J. Protozool. **1** 1954 : 187–190, fig.

**293.—Deflandre,** G. Eugène Penard et la protistologie. Nature, Paris No. **3227** 1954 : 110–111 figs.

**294.—DeLamater,** J. N., **Michaelson,** J. B., **Hallman,** F. A. & **Blumenthal,** H. An investigation into hyaluronidase as a factor in the mechanism of tissue invasion by *Endamoeba histolytica*. Amer. J. trop. Med. Hyg. **3** 1954 : 1–8.

**DeLamater,** J. N. *see* Blumenthal, H.

**DeLamater,** J. N. *see* Hallman, F. A.

**295.—Deiana,** S. & **Delitala,** G. La coccidiosi dei piccoli ruminanti. Nota III. Indagini sistematiche sulla diffusione della coccidiosi degli ovini e dei caprini in Sardegna. Riv. Parassit. **15** 1954 : 37–44 figs. [English summary.]

**Deligianis,** H. *see* Lynch, J. E.

**Delitala,** G. *see* Deiana, S.

**296.—Deom,** J. & **Mortelmans,** J. Sur la conservation en culture de *Trichomonas gallinae*. Ann. Inst. Pasteur **87** 1954 : 107–109.

**297.—Deom,** J. & **Mortelmans,** J. Observations sur la coccidiose du porc à *Eimeria debliecki* au Congo Belge. Ann. Soc. Belge Méd. trop. **34** 1954 : 43–46. [English summary.]

**298.—Deom,** J. & **Mortelmans,** J. Observations sur la trichomoniase de la poule au Congo Belge. Bull. Soc. Path. exot. **47** 1954 : 518–521.

**299.—Derville,** H. Le calcaire massif à *Prod. sublaevis* de la région d'Aresnes. [Foraminifera]. Bull. Soc. géol. Fr. (6) **1** 1951 : 453–467.

**300.—Desmonts,** G. & **Vinh,** L. T. Sur la réaction de fixation du complément au cours de la toxoplasmose du cobaye. C.R. Soc. Biol. **148** 1954 : 1000–1002.

**301.—Desowitz,** R. S. Studies on *Trypanosoma vivax*. X. The activity of some blood fractions in facilitating infection in the white rat. Ann. trop. Med. Parasit. **48** 1954 : 142–151 figs.

**302.—Devidé,** Z. Hromosomi cilijata (Euciliata i Opalinida). [Chromosomes of ciliates]. Rad Jugoslav. Akad. Znan., Zagreb **280** 1950 : 179–216 figs. [In Croat.]

**Dewey,** V. C. *see* Kidder, G. W.

**303.—Diamond,** L. S. A cecal *Trichomonas* from Canada geese. Proc. Soc. Protozool. **4** 1953 : 13.

**304.—Diamond,** L. S. A comparative study of 28 culture media for *Trichomonas gallinae*. Exper. Parasit. **3** 1954 : 251–258.

**305.—Diamond,** L. S. & **Herman,** C. M. Incidence of trypanosomes in the Canada goose as revealed by bone marrow culture. J. Parasit. **40** 1954 : 195–202 figs.

**306.—Diller,** W. F. Autogamy in *Paramecium polycaryum*. J. Protozool. **1** 1954 : 60–70 figs.

**Dineen,** C. F. *see* Peckham, R. S.

**307.—Dissanaike,** A. S. *Giardia ovis* in the intestine of *Nematodirus fillicollis*—a paraneoxenous association. Riv. Parassit. **15** 1954 : 381–390 figs.

**308.—Dmitrieva** R. G. & **Bogdanovich,** A. K. [Types of the fossil deposits of the Kubanbay during Chokrak time]. [Foraminifera]. Doklady Akad. Nauk. S.S.S.R. **73** 1950 : 557–568. [In Russian.]

**309.—Dodin, A.** Contribution à l'étude des besoins nutritifs et des conditions de culture d'*Entamoeba dysenteriae*. Méd. trop., Marseille **14** 1954 : 147–164 fig.

**310.—Doebl, F.** Mickrofaunistische Untersuchungen an der Grenze Rupelton-Schleichsand (Mitteloligozän) im Mainzer Becken. [Foraminifera]. Notizbl. hess. Landesanst. Bodenforsch. **82** 1954 : 57–111, figs.

**311.—Dogiel, V. A.** [Parasitic protozoa of fishes from Peter the Great Bay]. Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs. [In Russian].

**312.—Dogiel, V. A.** [Diseases of fishes in North-Eastern U.S.S.R. and control measures against these diseases in pond fisheries and in the course of acclimatization. (Protozoa)]. Vestnik [Trans.] Leningrad Univ. No. 8 1950 : 201–208. [In Russian].

**313.—Dogiel, V. A.** [Problems and prospects in parasitological investigations of fishes in southern rivers in connection with the reconstruction of fisheries. (Protozoa)]. 7th Conf. on Parasitol. Problems : Trans. of Conferences on Problems & Plans of Zool. Inst., Leningrad **4** 1954 : 43–46. [In Russian.]

**314.—Dogiel, V. A. & Rešetnjak, V. V.** [Materials on Radiolaria of North-Western Pacific Ocean]. Invest. of Far-Eastern Seas of U.S.S.R. **3** 1952 : 5–36 figs. [In Russian].

**Dolkart, R. E.** *see* Halpern, B.

**Donaldson, A. W.** *see* Brooke, M. M.

**Donatien, A.** *see* Sergent, E.

**315.—Doran, D. J.** A catalogue of the protozoa and helminths of North American rodents. I. Protozoa and Acanthocephala. Amer. Midl. Nat. **52** 1954 : 118–128.

**316.—Dragesco, J.** Diagnoses préliminaires de quelques ciliés psammophiles nouveaux. Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.

**317.—Dragesco, J.** Diagnoses préliminaires de quelques ciliés nouveaux des sables. Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

**318.—Dragesco, J.** Contribution à la connaissance d'un infusoire commensal de l'*Amphioxus* : *Frontonia branchiostomae* (Codreanu). Vie et Milieu **4** 1954 : 605–607 fig.

**319.—Dragesco, J.** Sur l'écologie des Ciliés psammophiles littoraux de la région de Banyuls-sur-Mer. Vie et Milieu **4** 1954 : 627–632.

**320.—Dragesco, J.** Diagnoses préliminaires de quelques Ciliés nouveaux des sables de Banyuls-sur-Mer. Vie et Milieu **4** 1954 : 633–637 figs.

**321.—Draper, C. C.** The duration of residual immunity following spontaneous cure of *Plasmodium berghei* in rats. Parasitology **44** 1954 : 338–341.

**322.—Draper, C. C. & Davidson, G.** Field studies of some of the basic factors concerned in the transmission of malaria. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 367.

**Drinnon, V. P.** *see* Eyles, D. E.

**Driver, C. H.** *see* Burbanck, W. D.

**Drobeck, H. P.** *see* Manwell, R. D.

**323.—Drooger, C. W.** The Oligocene-Miocene Boundary on both sides of the Atlantic. [Foraminifera]. Geol. Mag. **91** 1954 : 514–518.

**324.—Drooger, C. W.** Remarks on the species concept in paleontology. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 23–26.

**325.—Drooger, C. W.** *Miogypsina* in northern Italy. I–II. Proc. Acad. Sci. Amst. **57B** (2) 1954 : 226–249 figs.

**326.—Drooger, C. W.** *Miogypsina* in North-western Morocco. Proc. Acad. Sci. Amst. **57B** 1954 : 580–581 fig.

**327.—Dubin, I. N.** Growth of exoerythrocytic forms of *Plasmodium gallinaceum* in epithelial cells in tissue culture. Exper. Parasit. **3** 1954 : 425–444 figs.

**328.—Dubinina, M. N.** [Ecological investigation of the parasitic fauna of *Testudo horsfieldi* Gray in Tadzhikistan. (With protozoa)]. Mag. Parasit., Moscow **11** 1949 : 61–97 figs. [In Russian.]

**329.—Ducoff,** H. S. Enhancement of radiosensitivity by interference with certain phases of metabolism. [Protozoa]. J. Protozool. **1** Suppl. 1954 : 4.

**330.—Duijn** *jr.*, C. van. Protozoan parasites of fish. Microscope **9** 1953 : 126–131, 149–153, 185–188, 227–237 figs.

**331.—Dunbar,** C. O. Fusulinidae. Annex 1. of " The stratigraphy and main structural features of Afghanistan. I. & II. Popol. S.A. & Tromp. S.W. Proc. Acad. Sci. Amst. **57B** (3) 1954 : 370–394.

**Dunlop,** S. G. *see* Wang, W. L. L.

**Dupoux,** R. *see* Schneider, J.

**332.—Durall,** C. S. Estudio biologico del *Toxoplasma gondii* Nicolle y Manceaux 1908. Rev. iber. Parasitol. **14** 1954 : 149–224 figs. [English summary.]

**333.—Durán,** M. Contribución al estudio de los Tintinnidos del plancton de las costas de Castellón (Mediterráneo occidental). Nota II. Publ. Inst. Biol. apl., Barcelona **12** 1953 : 79–95 figs. [English summary.]

**Durán,** M. *see* Margalef, R.

**334.—Durand,** P. & **Mathis,** M. Sensibilité de trois rongeurs sauvages tunisiens, *Mus musculus spretus*, *Dipodillus campestris* et *Meriones shawi* au *Plasmodium berghei* Vincke et Lips, 1948. C.R. Ass. Franç. Av. Sci. **70** 1951 : 39–45.

**Dusseau,** E. M. *see* Porter, R. J.

**335.—Du Toit,** R. Trypanosomiasis in Zululand and the control of tsetse flies by chemical means. Onderstepoort J. vet. Res. **26** (3) 1954 : 317–387 maps.

**336.—Dutta,** B. N. *P. berghei* infection in adrenalectomised rats. Bull. Calcutta Sch. trop. Med. **2** (1) 1954 : 6.

**337.—Dutta,** B. N. & **Chaudhuri,** R. N. Observations on rats infected with *Plasmodium berghei*. Bull. Calcutta Sch. trop. Med. **2** (1) 1954 : 5–6.

**338.—Dutta,** B. N., **Das Gupta,** N. N., **De,** M. L., **Guha,** A. & **Nandi,** S. New method for study of intracellular parasites with the electron microscope. [*Plasmodium*]. Science **120** 1954 : 428–430 figs.

**Dutta,** B. N. *see* Sen, H. G.

**Dutta,** B. N. *see* Sen Gupta, P. C.

**339.—Dzhanelidze,** O. I. [The foraminifera of the Lower Miocene of Gruzia]. C.R. Acad. Sci. U.S.S.R. N.S. **95** (9) 1954 : 1047–1049. [In Russian.]

**340.—Dzizynski,** A. & **Gedroyc,** M. Plant substances and other medicines as antibiotics against *Trichomonas foetus*. Acta Parasit. Polon. **2** 1954 : 247–274. [Polish with English summary.]

**341.—Eadie,** J. M. & **Oxford,** A. E. A remarkable disintegrative effect of skatole upon certain rumen ciliate Protozoa. Nature, Lond. **174** 1954 : 973.

**342.—Eames,** F. E. The Caribbean " Oligocene ". [Foraminifera]. Geol. Mag. **91** 1954 : 326–327.

**343.—Echols,** D. J. News—Mid-Continent, United States [Foraminifera]. Micropaleontologist **8** (1) 1954 : 3–4.

**344.—Echols,** D. J. News—Mid-Continent, United States [Foraminifera]. Micropaleontologist **8** (3) 1954 : 2.

**345.—Edelman,** M. H. & **Spingarn,** C. L. The relation of the number of cysts in the stool inoculum to the incidence of positive cultures of *Endamoeba histolytica*. Amer. J. trop. Med. Hyg. **3** 1954 : 995–998.

**346.—Edeson,** J. F. B. Presumed exo-erythrocytic stages of *Plasmodium knowlesi* in the liver of *Macaca irus*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 280.

**347.—Edgar,** S. A. Effect of temperature on the sporulation of oocysts of the protozoan, *Eimeria tenella*. Trans. Amer. micr. Soc. **73** 1954 : 237–242.

**348.—Edgell,** H. S. The stratigraphical value of *Bolivinoides* in the Upper Cretaceous of North-west-Australia. Contr. Cushman Fdn. **5** (2) 1954 : 68–76 figs.

**349.—Ehret,** C. F. & **Powers,** L. On the structure and development of the macronucleus in *Paramecium bursaria*. J. Protozool. **1** Suppl. 1954: 4–5.

**350.—Ehret,** C. F., **Powers,** E. L. & **Roth,** L. E. Phase contrast and electron microscopic observations on macronuclear structure in *Paramecium bursaria*. Proc. Soc. Protozool. **4** 1953 : 13.

**Ehret,** C. F. *see* Powers E. L.

**351.—Eichel,** H. J. Purine-metabolizing enzymes of *Tetrahymena pyriformis*. J. Protozool. **1** Suppl. 1954 : 12–13.

**352.—Eisenack,** A. Foraminiferen aus dem baltischen Silur. Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

**353.—Elliott,** A. M., **Brownell,** L. E. & **Gross,** J. A. The use of *Tetrahymena* to evaluate the effects of gamma radiation on essential nutrilites. J. Protozool. **1** 1954 : 193–199 figs.

**354.—Elliott,** A. M., **Brownell,** L. E & **Gross,** J. A. The use of *Tetrahymena* to evaluate the effects of gamma radiation on essential nutrilites. J. Protozool. **1** Suppl. 1954 : 9.

**355.—Elliott,** A. M. & **Hayes,** R. E. Sexuality in *Tetrahymena*. Proc. Soc. Protozool. **4** 1953 : 5.

**356.—Elliott,** A. M. & **Hayes,** R. E. Factors influencing conjugation in *Tetrahymena*. Proc. Soc. Protozool. **4** 1953 : 5.

**357.—Elliott,** A. M. & **Hayes,** R. E. Search for biochemical mutations in *Tetrahymena*. J. Protozool. **1** Suppl. 1954 : 2.

**358.—Ellison,** S. P. Microfossils as environment indicators in marine shales [Foraminifera]. J. Sediment. Petrol. **21** 1951 : 214–225.

**359.—Ellison,** S. P. Television microscopy for micropaleontology. Contr. Cushman Fdn. **5** (3) 1954 : 106.

**360.—Elsdon-Dew,** R. *Isospora* infections in man. S. Afr. J. Sci. **50** 1954 : 271–272.

**361.—Emiliani,** C. Depth habitats of some species of pelagic Foraminifera as indicated by oxygen isotope ratios. Amer. J. Sci. **252** (3) 1954 : 149–158 figs.

**362.—Endahl,** G. L. & **Krueger,** K. K. Demonstration of fumarase in cell-free preparations from *Paramecium caudatum*. Science **120** 1954 : 578.

**363.—Engel,** F. M. Der Künstler Plasma. Mikrokosmos **41** (11) 1952 : 248–251 figs.

**English,** A. R. *see* Lynch, J.E.

**Enjumet,** M. *see* Hollande, A.

**364.—Entner,** N. & **Anderson,** H. H. Lactic and succinic acid formation by *Endamoeba histolytica in vitro*. Exper. Parasit. **3** 1954 : 234–239.

**365.—Erdmann,** W. F. Über eine neue einfache Methode zur Fixierung, Färbung und Konservierung von Protozoen im Stuhl. Mikrokosmos **43** (8) 1954 : 189–190.

**Erichsen,** S. *see* Harboe, A.

**366.—Evans,** F. R. Reactions of *Paramecium multimicronucleatum* to Suctorian toxin. Trans. Amer. micr. Soc. **72** 1953 : 171–174.

**367.—Evens,** F. Étude sur le plancton du rivier de Hamme (Belgique). Biol. Jaarb. **21** 1954 : 47–197.

**368.—Eyles,** D. E. Serologic response of white rats to *Toxoplasma* infection. J. Parasit. **40** 1954 : 77–83.

**369.—Eyles,** D. E. & **Frenkel,** J. K. A bibliography of toxoplasmosis and *Toxoplasma gondii*. First supplement. U.S. Publ. Hlth. Serv., Memphis **1954** : 46 pp.

**370.—Eyles,** D. E. & **Jones,** F. E. The prevalence of *Endamoeba histolytica* and other intestinal parasites in a selected urban area. Amer. J. trop. Med. Hyg. **3** 1954 : 988–994 fig.

**371.—Eyles,** D. E., **Jones,** F. E., **Jumper,** J. R. & **Drinnon,** V. P. Amebic infections in dogs. J. Parasit. **40** 1954 : 163–166.

**Eyles,** D. E. *see* Jeffery, G. M.

**Eyles,** D. E. *see* Jones, F. E.

**372.—Fabiani,** G. Immunology of *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 347–362.

**373.—Fabiani,** G. & **Fulchiron,** G. Influence de la splénectomie sur la résistance naturelle et l'apparition de l'immunité au cours du paludisme expérimental du rat blanc. C.R. Soc. Biol. **148** 1954 : 530–533.

**374.—Fabiani,** G. & **Fulchiron,** G. Influence de la splénectomie sur le maintien de l'immunité spécifique au cours du paludisme expérimental du rat blanc. C.R. Soc. Biol. **148** 1954 : 673–675.

**375.—Fabiani,** G. & **Orfila,** J. Caractères généraux du paludisme expérimental de la souris blanche infectée par *Plasmodium berghei*. Ann. Inst. Pasteur **87** 1954 : 38–45.

**376.—Fabiani,** G. & **Orfila,** J. Variations du facteur de maturation réticulocytaire au cours du paludisme expérimental de la souris. C.R. Soc. Biol. **148** 1954 : 670–673.

**377.—Fabiani,** G. & **Orfila,** J. Action du régime lacté sur le paludisme expérimental de la souris blanche. C.R. Soc. Biol. **148** 1954 : 1239–1241.

**378.—Fairbairn,** H. The animal reservoirs of *Trypanosoma rhodesiense* and *Trypanosoma gambiense*. Ann. Soc. Belge Méd. trop. **34** 1954 : 663–669.

**379.—Fairbairn,** H. The prevalence in Nigeria and the morphology of *Trypanosoma vivax*. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-Tsé & Trypanos., Leopoldville No. **206** 1954 : 158–160.

**Fairley,** N. H. *see* Boyd, J. S. K.

**380.—Fallis,** A. M., **Pearson,** J. C. & **Bennett,** G. F. On the specificity of *Leucocytozoon*. Canad. J. Zool. **32** 1954 : 120–124.

**Fallot,** P. *see* Faure-Muret, A.

**Farinhote,** A. A. C. *see* Ramos, A.

**381.—Farr,** M. M. *Cyclospora caryolytica* and *Eimeria* sp. from the small intestine of the hairy-tailed mole, *Parascalops breweri*. Proc. Soc. Protozool. **4** 1953 : 22.

**382.—Farr,** M. M. Renal coccidiosis of Canada geese. J. Parasit. **40** 1954 : Suppl. 46.

**Farrell,** R. L. *see* Cole, C. R.

**Fauran,** P. *see* Floch, H.

**383.—Faure,** A. Évolution de l'infection à *Plasmodium berghei* chez la souris dans le Midi de la France. Bull. Soc. Path. exot. **47** 1954 : 795–802.

**384.—Fauré-Fremiet,** E. *Gastrocirrhus adhaerens* n. sp. An. Acad. bras. Cienc. **26** (1) 1954 : 163–168 figs.

**385.—Fauré-Fremiet,** E. Réorganisation du type endomixique chez les Loxodidae et chez les *Centrophorella*. J. Protozool. **1** 1954 : 20–27 figs.

**386.—Fauré - Fremiet,** E. & **Gauchery,** M. La reduction des sels de tetrazolium par les Infusoires Ciliés. C.R. Soc. Biol., Paris **148** 1954 : 640–642.

**387.—Fauré-Fremiet,** E., **Gauchery** M. & **Tuffrau,** M. Les processus d'enkystement chez *Euplotes muscicola* Kahl. Bull. biol. France-Belgique **88** 1954 : 154–167 figs.

**388.—Faure-Muret,** A., **Abrard,** R. & **Fallot,** P. Observations nouvelles sur le nummulitique des abords du massif de l'Argentera-Mercantour. C.R. Acad. Sci., Paris **238** 1954 : 421–423.

**389.—Faust,** E. C. Clinical and public health significance of amebiasis. An. Inst. Med. trop., Lisbon **9** 1952 [1954] : 1337–1357.

**390.—Faust,** E. C. Amebiasis. Springfield & Oxford, **1954** : xi + 154 pp. figs.

**391.—Feinberg,** J. G. A variable morphological character of *Trichomonas vaginalis*. Nature, London **173** 1954 : 456.

**392.—Fennell,** R. A. & **Marzke,** F. O. The relation between vitamins, inorganic salts and the histochemical characteristics of *Tetrahymena geleii* W. J. Morph. **94** 1954 : 587–618 figs.

**Fernandez Nafria,** A. *see* Matilla, V.

**393.—Ferreira,** E. C. Distribuição e incidencia de algumas endemias de Angola. [Malaria]. An. Inst. Med. trop., Lisbon **10** 1953 [1954] : 1739–1775. [English summary.]

**394.—Ferreira,** J. M. News—Portugal [Foraminifera]. Micropaleontologist **8** (1) 1954 : 9.

**Ferreira Malaquias,** J. *see* Fraga de Azevedo, J.

**Ferreira Pontes,** J. *see* Coda, D.

**Figge,** F. H. J. *see* Wichterman, R.

**Filer,** M. K. *see* Baranger, P.

**Filfus,** J. *see* Hutner, S. H.

**395.—Filipponi,** A. Sul dimorfismo sessuale nelle gregarine. Riv. Parassit. **15** 1954 : 7–36, figs. [English summary.]

**396.—Filipponi,** A, Dimorfismo sessuale nei trofozoiti del genere *Gigaductus* (Sporozoa, Gregarinida, Gigaductidae). Riv. Parassit. **15** 1954 : 127–140 figs. [English summary.]

**397.—Finley,** H. E. Preliminary account of biochemical studies on *Vorticella*. Proc. Soc. Protozool. **4** 1953 : 10.

**398.—Finley,** H. E. & **Williams,** H. B. Amino acids in *Vorticella microstoma*. J. Protozool. **1** Suppl. 1954 : 7.

**399.—Finley,** H. E. & **Williams,** H. B. Biological activity of *Vorticella microstoma* sex attractants. J. Protozool. **1** Suppl. 1954 : 14.

**400.—Fitzgerald,** P. R., **Hammond,** D. M. & **Shupe,** J. LeG. Studies on the role of trichomonads in the production of atrophic rhinitis in pigs. Cornell Vet. **44** 1954 : 302–310.

**401.—Fitzgerald,** P. R., **Hammond,** D. M. & **Shupe,** J. LeG. The role of cultures in immediate and delayed examination of preputial samples for *Trichomonas foetus*. Vet. Med. **49** 1954 : 409–412 figs.

**Fleming,** C. A. *see* Wellmann, H. H.

**402.—Flick,** E. W. Experimental analysis of some factors influencing variation in the flagellar number of *Trichomonas hominis* from man and other primates and their relationship to nomenclature. Exper. Parasit. **3** 1954 : 105–121.

**403.—Flir,** K. Zur Toxoplasmose des Hundes. Zbl. Vet., Berlin **1** (9) 1954 : 810–827 figs. [English summary.]

**404.—Floch,** H. Bien des notions admises sur l'amibiase devraient être révisées. Arch. Inst. Pasteur Guyane Franç. **15** (315) 1954 : 1–8.

**405.—Floch,** H. *Leishmania tropica guyanensis* n. ssp. agent de la leishmaniose tégumentaire des Guyanes et de la Amérique Centrale. Arch. Inst. Pasteur Guyane Franç. **15** (328) 1954 : [sep. pag.]

**406.—Floch,** H. Sur la pathologie vétérinaire en Guyane Française. Les affections des bovidés. (1) Generalités. Trypanosomiases. Arch. Inst. Guyane Franç. **15** (329) 1954 : 1–8.

**407.—Floch,** H. Exophilie des Anophèles et transmission résiduelle du paludisme. Arch. Inst. Pasteur Guyane Franç. **15** (346) 1954 : 1–7.

**408.—Floch, H.** *Leishmania tropica guyanensis* n. sp., agent de la leishmaniose tégumentaire des Guyanes et de l'Amérique Centrale. Bull. Soc. Path. exot. **47** 1954 : 784–787.

**409.—Floch,** H. & **Fauran,** P. Discussion sur la nouvelle trypanosomiase humaine Americaine. Ann. Parasit. hum. comp. **29** 1954 : 499–505.

**410.—Floch,** H., & **Fauran,** P. Sur les trypanosomes récemment décrits dans le Nouveau Monde, notamment *T. rangeli*, *T. cebus*, *T. guatemalense*, *T. ariarii*. Arch. Inst. Pasteur Guyane Franç. **15** (336) 1954: 1–7.

**411.—Förster,** H. & **Wiese,** L. Gamonwirkungen bei *Chlamydomonas eugametos*. Z. Naturf. **9B** 1954 : 548–550.

**412.—Ford,** T. D. The Upper Carboniferous Rocks of the Ingleton Coalfield. [Foraminifera]. Quart. J. Geol. Soc. Lond. **110** (3) 1954 : 231–265.

**Fornina,** E. V. *see* Samoilova, R. B.

**413.—Føyn,** B. The multinucleate generation of the foraminifer *Saccamina sphaerica* M. Sars. Nytt Mag. Zool. **2** 1954 : 82–84 figs.

**414.—Fraga de Azevedo,** J. L'état actuel du problème du Kala-azar au Portugal. Arch. Inst. Pasteur Algér. **32** 1954 : 234–254 figs.

**415.—Fraga de Azevedo, J., Colaço, A. T. F. & Costa Faro,** M. da. Contribuição para o conhecimento das parasitoses intestinais humanas no sul do Save (Moçambique). [Protozoa]. An. Inst. Med. trop., Lisbon **11** 1954 : 121–137. [English summary.]

**416.—Fraga de Azevedo, J., Ferreira Malaquias,** J. & **Marques da Gama,** M. Amibíase autoctone e amebíase de importação. An. Inst. Med. trop., Lisbon **9** 1952 [1954] : 1413–1427.

**Franca Rodriguez,** M. E. *see* Lopez Fernandez, J. R.

**Franco,** A. *see* Trincão, C.

**417.—Frank,** H. G. & **Reiner,** L. The action of fatty acids on *Trichomonas vaginalis.* J. Immunol. **72** 1954 : 191–193.

**Frankie,** G. *see* Smet, R. De.

**418.—Freitas,** G. de & **Hausmann,** R. L. Sôbre o crescimento de *Schizotrypanum cruzi* em meios livres de proteinas nativas. An. Acad. Brasil. Sci. **26** 1954 : 531–535 figs. [English summary.]

**419.—Freitas,** J. L. P. de. O diagnóstico de laboratório da moléstia de Chagas. Folia clin. biol., S. Paulo **21** 1954 : 219–228.

**French,** E. M. *see* Herman, C. M.

**Frenkel,** J. K. *see* Eyles, D. E.

**Freyvogel,** T. *see* Geigy, R.

**420.—Friedrich-Freksa,** H. & **Kaudewitz,** F. Letale Spätfolgen nach Einbau von $^{32}P$ in *Amoeba proteus* und ihre Deutung durch genetische Untereinheiten. Z. Naturf. **8B** (7) 1953 : 343–355 figs.

**421.—Frizzell,** D. L. & **Anderson,** J. J. Diastems in the Pecan Gap Chalk of Travis County, Texas. [Foraminifera]. J. Sediment. Petrol. **20** 1950 : 55–59.

**Frolova,** N. V. *see* Pavlovski, E. V.

**Frost,** J. K. *see* Burrows, R. B.

**Fujimoto,** H. *see* Yamada, T.

**422.—Fujita,** H. [On the possibility of the stratigraphic application of Cretaceous foraminifera in Hokkaido]. J. geol. Soc. Japan **56** (656) 1950 : 289. [Abstract in Japanese.]

**423.—Fukuda,** M. [Microfossiliferous investigations of the Yuraku formation]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 275. [Abstract in Japanese].

**Fulchiron,** G. *see* Fabiani. G.

**Fuller,** R. C. *see* Kidder, G. W.

**424.—Fulton,** J. D. Cortisone and *Plasmodium berghei* infection in rodents. Ann. trop. Med. Parasit. **48** 1954 : 314–317.

**425.—Fulton,** J. D. Protozoal infections and diet. Lancet **266** 1954 : 162.

**Fulton,** J. D. *see* Crowther, S.

**426.—Furrer,** H. Die Tithon-Berriasbreccien vom Hahnenmoospass S.W. Adelboden (Berner Oberland). [Foraminifera]. Ecl. geol. Helv. **43** 1950 : 161–166 figs.

**Fuse,** M. *see* Hara, K.

**427.—Gabel,** J. R. The morphology and taxonomy of the intestinal protozoa of the American woodchuck, *Marmota monax* Linnaeus. J. Morph. **94** 1954 : 473–550 figs.

**428.—Gabel,** J. R. Protozoa from the Mountain Marmot, *Marmota flaviventris.* J. Protozool. **1** Suppl. 1954 : 1.

**429.—Gabel,** J. R. A new protozoan, *Paratrichomonas ulmeri* (Mastigophora) from the American woodchuck, *Marmota monax* Linnaeus. J. Tenn. Acad. Sci. **29** 1954 : 260–265 figs.

**Gaither,** N. *see* Kimball, R. F.

**430.—Gallais,** P. Study of the *T. gambiense* experimental trypanosomiasis in men. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 167–171.

**431.—Galliard,** H. Malaria and P.A.B. in the diet. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 274.

**432.—Galliard,** H., **Buttner,** A. & **Bourcart,** N. Action de la somatrophine, hypophysaire et de la nutrition sur l'évolution de *Trypanosoma inopinatum* Sergent, 1904 (Souche Algérienne) chez la grenouille verte. Ann. Parasit. hum. comp. **29** 1954 : 179–198 figs.

**433.—Galliard,** H. & **Lapierre,** J. Investigations on immunity to *Plasmodium berghei* infection in mice. Indian J. Malariol. **8** 1954 : 363–368.

**434.—Galliard,** H., **Lapierre,** J. & **Golvan,** Y. L'hyaluronidase dans les infections à protistes sanguicoles et en particulier *Plasmodium berghei.* Ann. Parasit. hum. comp. **29** 1954 : 330–346.

**435.—Galliard,** H., **Lapierre,** J. & **Golvan,** Y. Facteurs exaltants de la virulence de *Plasmodium berghei.* Effets comparés de la hyaluronidase et de la phénylhydrazine. C.R. Acad. Sci., Paris **238** 1954 : 741–743.

**436.**—**Galliard, H., Lapierre, J. & Larivière, M.** Réponse du cortex surrénal à l'A.C.T.H. au cours de certaines affections expérimentales à protistes sanguicoles. Ann. Parasit. hum. comp. **29** 1954 : 5–11 figs.

**437.**—**Galliard, H., Lapierre, J. & Murard, J.** Inhibition de l'infection à *Plasmodium berghei* chez la souris et le rat par l'hormone hypophysaire de croissance (S.T.H.). Ann. Parasit. hum. comp. **29** 1954 : 167–178 figs. (Errata : 346).

**438.**—**Galliard, H., Lapierre, J. & Murard, J.** Évolution de l'infection à *Plasmodium berghei* chez les rats nouveau-nés. Bull. Soc. Path. exot. **47** 1954 : 885–894.

**439.**—**Gardiner, J. L.** The severity of cecal coccidiosis infection in chickens as related to the age of the host and the number of oocysts ingested. J. Parasit. **40** 1954 : Suppl. 26.

**440.**—**Garnham, P. C. C.** Life history of malaria parasites. Ann. Rev. Microbiol. **8** 1954 : 153–166.

**441.**—**Garnham, P. C. C.** Malaria in the African child. E. Afric. med. J. **31** 1954 : 155–159.

**442.**—**Garnham, P. C. C.** Distribution of blood protozoa in Africa. Proc. Linn. Soc. Lond. **165** 1954 : 61–66.

**443.**—**Garnham, P. C. C.** A haemogregarine in *Argas brumpti*. Riv. Parassit. **15** 1954 : 425–435 figs.

**444.**—**Garnham, P. C. C. & Bray, R. S.** *Toxoplasma*-like bodies in reptilian blood. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 1.

**445.**—**Garnham, P. C. C., Bray, R. S., Cooper, W., Lainson, R., Awad, F. I. & Williamson, J.** Pre-erythrocytic stages of human malaria : *Plasmodium ovale*. A preliminary note. Brit. med. J. **1** 1954 : 257.

**446.**—**Garnham, P. C. C. & Roe, F. J. C.** *Encephalitozoon muris* in liver and spleen of subinoculated mice. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 1.

**Garnham, P. C. C.** *see* Boyd, J. S. K.

**Gauchery, M.** *see* Fauré-Fremiet, E.

**447.**—**Gauthier-Lievre, L.** Les genres *Nebela*, *Paraquadrula* et *Pseudonebela* (Rhizopodes testacés) en Afrique. Bull. Soc. Hist. nat. Afr. N. **44** (7–8) 1954 : 324–366 figs.

**448.**—**Geckler, R. P. & Kimball, R. F.** The effects of hypoxia on X-ray destruction of kappa in *Paramecium aurelia*. Genetics **38** 1954 : 663–664.

**Gedroyc, M.** *see* Dzizynski, A.

**Gehenio, P. M.** *see* Luyet, B. J.

**449.**—**Geigy, R. & Freyvogel, T.** On the influence of high altitudes on the course of infection of chicken malaria (*P. gallinaceum*). Acta trop. **11** 1954 : 167–171.

**450.**—**Gelei, J.** Neue *Euplotes*-Arten aus dem Fluszsystem der Teisz. XV. Mitteilung über die Ciliaten der ung. Fauna. Ann. Biol. Univ. Szeged **1** 1950 : 242–247 figs.

**451.**—**Gellért, J.** Die Anatomie und Physiologie von *Cirrophrya haptica* n. gen., n. sp. Ann. Biol. Univ. Szeged **1** 1950 : 295–312 figs.

**452.**—**George, T. N.** Pre-Seminulan Main Limestone of the Avonian Series in Breconshire. [Foraminifera]. Quart. J. Geol. Soc. London **110** (3) 1954 : 283–322 figs.

**453.**—**George, T. N.** Fossil species [Foraminifera]. Sci. Prog. **42** (166) 1954 : 220–228.

**454.**—**Georgevitch, J.** [Parasitic fauna of Oligochaeta and Triclada in Lake Ochrida. (Incl. protozoa)]. Glasn. Acad. Serbe Sci., N.S., **192** 1949 : 87–102 figs. [In Serbian.]

**455.**—**Georgevitch, J.** Étude de cycle évolutif de *Haplosporidium periplanetae* nov. spec. Bull. Acad. Serbe Sci. math. nat., N.S. **12** 1953 : 98–103 figs.

**456.**—**Gianotti, A.** I foraminiferi e la loro importanza in geologia. Natura, Milano **44** (1–2) 1953 : 1–23 figs.

**457.**—**Gibbs, A. J.** *Leptomonas cenaei* sp. nov., from the digestive tract of *Cenaeus carnifex* (Hemiptera), with special reference to the metacyclic forms. Trans. R. Soc. S. Afr. **34** 1954 : 245–249 figs.

**Gibson, R. J.** *see* Schoenborn, H. W.

**458.—Giese,** A. C. The effects of starvation on photoreactivation in *Colpidium colpoda*. Physiol. Zöol. **27** 1954 : 71–78 figs.

**459.—Giese,** A. C. & **Christensen,** E. Effects of ozone on organisms. [Protozoa]. Physiol. Zoöl. **27** 1954 : 101–115 figs.

**460.—Gill,** B. S. Transmissibility of turkey coccidia (*Eimeria meleagridis*, *E. meleagrimitis* and *E. gallopavonis*) to chickens. Indian vet. J. **31** 1954 : 92–95.

**461.—Gill,** B. S. On the pathogenicity of *Eimeria acervulina* (Tyzzer, 1929) to susceptible poultry. Indian vet. J. **31** 1954 : 95–98.

**Gill,** B. S. *see* Ray, H. N.

**462.—Gillies,** M. T. The recognition of age-groups within populations of *Anopheles gambiae* by the pre-gravid rate and the sporozoite rate. [*Plasmodium*]. Ann. trop. Med. Parasit. **48** 1954 : 58–74.

**463.—Gilman,** L. C. Occurrence and distribution of mating type varieties in *Paramecium caudatum*. J. Protozool. **1** Suppl. 1954 : 6–7.

**Gingrich,** W. D. *see* Box, E. D.

**464.—Giovannoni,** M., **Mello,** M. J. de & **Nobrega,** P. Ensaio de transmissão da toxoplasmose por insetos hematofagos. (Toxoplasmosis transmission by bloodsucking insects). Arq. Inst. biol., S. Paulo **21** 1954 : 1–4. [English summary.]

**Giovannoni,** M. *see* Nobrega, P.

**Giroud,** A. *see* Giroud, P.

**465.—Giroud,** P., **Giroud,** A. & **Martinet,** M. Avortements et lésions des embryons chez la ratte gestante inoculée avec *Toxoplasma gondi*. Bull. Soc. Path. exot. **47** 1954 : 505–508 figs.

**466.—Giroud,** P., **Giroud,** A. & **Martinet,** M. Répercussions de l'inoculation de toxoplasme à des rattes gestantes. C.R. Soc. Biol. **148** 1954 : 1030–1031.

**467.—Glaçon,** G. & **Glaçon,** J. Sur la présence d'Eocène moyen et supérieur dans la région de Lafayette et d'Ain-Roua au Nord de Sétif (Algerie). [Foraminifera]. C.R. Acad. Sci., Paris **238** 1954 : 1053–1055.

**Glaçon,** J. *see* **Glaçon,** G.

**468.—Glaessner,** M. F. New aspects of foraminiferal morphology and taxonomy. Contr. Cushman Fdn. **5** (1) 1954 : 21–25 fig.

**Goldacre,** R. J. *see* Prescott, D. M.

**469.—Goldman,** M. Use of fluorescein-tagged antibody to identify cultures of *Endamoeba histolytica* and *Endamoeba coli*. Amer. J. Hyg. **59** 1954 : 318–325 figs.

**470.—Golubkov,** N. A. & **Pishvanova,** L. S. [Stratigraphy of Kalush deposits of Pre-Carpathians] [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **94** (4) 1954 : 741–743. [In Russian.]

**471.—Golubtzov,** V. K. [The Lower Carboniferous deposits of Yelsk (Pripetz Polesie)]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **97** (1) 1954 : 133–135.[In Russian.]

**Golvan,** Y. *see* Galliard, H.

**472.—Goodwin,** J. C. & **Thomson,** J. N. Purisima Pliocene foraminifera of the Halfmoon Bay area, San Mateo County, California. Contr. Cushman Fdn. **5** (4) 1954 : 170–178 figs.

**473.—Goodwin,** T. W. & **Jamikorn,** M. Studies in carotenogenesis. Some observations on caratenoid synthesis in two varieties of *Euglena gracilis*. J. Protozool. **1** 1954 : 216–219.

**474.—Gorbunova,** L. I. & **Saidova,** H. M. [Lithology and microfauna of the Lower Cretaceous deposits of Central and Northern Dagestan]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **94** (6) 1954 : 1163–1165 figs. [In Russian.]

**Gordon,** H. A. *see* Phillips, B. P.

**Gorham,** J. R. *see* Davis, C. L.

**Gouveia,** E. *see* Trincão, C.

**475.—Grassé,** P.-P. Flagellata ou Actinopoda *incertae sedis* : genre *Multicilia* Cienkowski, 1881. In : Traité de Zoologie, Paris **1** (2) 1953 : 490–491 figs.

**476.—Grassé,** P.-P. Sous-embranchement des Sporozoaires (Sporozoa Leuckart, 1879 ; Rhabdogeniae Delage et Hérouard, 1896 ; Telosporidia Schaudinn, 1900). In : Traité de Zoologie, Paris **1** (2) 1953 : 545–797 figs.

**477.—Grassé,** P.-P. Classe des Sarcosporidies : Sarcosporidia Bütschli, 1882. In : Traité de Zoologie, Paris **1** (2) 1953 : 907–917 figs.

**478.—Grassé,** P.-P. Sporozoaires *incertae sedis*. In : Traité de Zoologie, Paris **1** (2) 1953 : 918–921.

**479.—Greenberg,** J. The effect of analogues of folic acid on the activity of sulfadiazine against *Plasmodium gallinaceum*. Exper. Parasit. **3** 1954 : 351–357.

**480.—Greenberg,** J. & **Bond,** H. W. Resistance of a pyrimethamine-resistant strain of *Plasmodium gallinaceum* to certain 2, 4-diaminopyrimidines and related compounds. J. Parasit. **40** 1954 : 472–475.

**481.—Greenberg,** J. & **Coatney,** G. R. Some host-parasite relationships in *Plasmodium berghei* infections. Indian J. Malariol. **8** 1954 : 313–325.

**482.—Greenberg,** J., **Coatney,** G. R. & **Trembley,** H. L. Relationship between time of administration, dose, and prophylactic activity of pyrimethamine on sporozoite-induced *Plasmodium gallinaceum* infections. Amer. J. trop. Med. Hyg. **3** 1954 : 672–675.

**483.—Greenberg,** J., **Nadel,** E. M. & **Coatney,** G. R. Differences in survival of several inbred strains of mice and their hybrids infected with *Plasmodium berghei*. J. inf. Dis. **95** 1954 : 114–116.

**484.—Greenberg,** J., **Taylor,** D. J. & **Trembley,** H. L. The effect of milk diets on the course of sporozoite induced *Plasmodium gallinaceum* infections in chicks. Amer. J. Hyg. **60** 1954 : 99–105.

**485.—Greenberg,** J., **Taylor,** D. J. & **Bond,** H. W. Glucosamine in the culture of *Endamoeba histolytica* with a mixed bacterial flora. J. Parasit. **40** 1954 : Suppl. 22.

**486.—Greenberg,** J. & **Trembley,** H. L. Infections produced by mixed strains of *Plasmodium gallinaceum* in chicks. J. Parasit. **40** 1954 : 336–340.

**487.—Greenberg,** J. & **Trembley,** H. L. The apparent transfer of pyrimethamine-resistance from the BI strain of *Plasmodium gallinaceum* to the M strain. J. Parasit. **40** 1954 : 667–672.

**488.—Greenberg,** J., **Trembley,** H. L. & **Coatney,** G. R. The effect of pyrimethamine on the BI strain of *Plasmodium gallinaceum*. Amer. J. trop. Med. Hyg. **3** 1954 : 665–671.

**Greenberg,** J. *see* Highman, B.

**Greenberg,** J. *see* Nadel, E. M.

**Greenberg,** J. *see* Taylor, D. J.

**Greenberg,** J. *see* Trembley, H. L.

**489.—Gregg,** J. H., **Hackney,** A. L. & **Krivanek,** J. O. Nitrogen metabolism of the slime mold *Dictyostelium discoideum* during growth and morphogenesis. Biol. Bull., Woods Hole **107** 1954 : 226–235 figs.

**490.—Grell,** K. G. *Eucoccidium dinophili* n.g., n.sp. und das System der Coccidien. Naturwissenschaften **40** 1953 : 227.

**491.—Grell,** K. G. Die Generationswechsel der polythalamen Foraminifere *Rotaliella heterocaryotica*. Arch. Protistenk. **100** 1954 : 268–286 figs.

**492.—Grell,** K. G. Zur Sexualität der Foraminiferen. Naturwissenschaften **41** (2) 1954 : 44–45.

**493.—Grell,** K. G. Kerndualismus bei einer Foraminifere. Z. Naturf. **9B** (3) 1954 : 241.

**494.—Gridley,** M F. A stain for *Endamoeba histolytica* in tissue sections. Amer. J. clin. Path. **24** 1954 : 243–244 fig.

**495.—Grignaschi,** V. J. Parasitémie primaire à formes métacycliques de *Schizotrypanum cruzi* déterminée par le contact des déjections de *Triatoma infestans* avec la peau excoriée de la souris. Ann. Parasit. hum. comp. **29** 1954 : 506–509.

**496.—Grignaschi,** V. J. Cortisona e inmunidad natural relativa hemoprotozoárica. Exper. Parasit. **3** 1954 : 30–37 figs. [English summary.]

**497.—Grill,** R. Der Flysch, die Waschbergzone und das Jungtertiar um Ernstbrunn. (Niederösterreich) [Foraminifera]. Jb. geol. Bundesanst. **96** (1) 1953 : 65–116 figs.

**498.—Grill,** R. News—Austria [Foraminifera]. Micropaleontologist **8** (2) 1954 : 13–15.

**499.—Grospietsch,** T. Die beschalten Amöben unserer Hochmoore. Mikrokosmos **41** (10) 1952 : 219–224 figs.

**500.—Grospietsch,** T. Die Rhizopodenanalyse als Hilfsmittel der Moorforschung. Naturwissenschaften **39** (14) 1952 : 318–323 figs.

**501.—Grospietsch,** T. Studien über die Rhizopodenfauna von Schwedisch-Lappland. Arch. Hydrobiol. **49** 4 1954 : 546–580 figs.

**502.—Grospietsch,** T. Die Bedeutung der Rhizopodenanalyse für die Moorforschung. Mitt. Max-Planck Gesell. Heft. 2 1954 : 94–97.

**503.—Gross,** J. A. A comparative study of the effects of antibiotics on growth of *Tetrahymena*. J. Protozool. **1** Suppl. 1954 : 12.

**Gross,** J. A. *see* Elliott, A. M.

**Grossowicz,** N. *see* Citri, N.

**504.—Gruchy,** D. F. The system of breeding relations in *Tetrahymena pyriformis*. J. Protozool. **1** Suppl. 1954 : 2.

**Guha,** A. *see* Das Gupta, N. N.

**Guha,** A. *see* Dutta, B. N.

**505.—Guilford,** H. G. Parasites found in the sea lamprey, *Petromyzon marinus*, from Lake Michigan. [Ciliates]. J. Parasit. **40** 1954 : 364.

**506.—Guillard,** R. R. L. A vacuoleless variant of *Chlamydomonas moewusii*, requiring a high osmotic pressure for survival. J. Protozool. **1** Suppl. 1954 : 10.

**Gumble,** A *see* Hewitt, R. I.

**Gunn,** E. *see* Myatt, A. V.

**507.—Gupta,** S. K., **Mukherjee,** A. M. & **Neogy,** K. N. Incidence of *E. histolytica* infection and *Giardia intestinalis* infection in patients attending the out-patients' department during the year 1953. Bull. Calcutta Sch. trop. Med. **1** (3) 1954 : 5–6.

**Gurri,** J. *see* Talice, R. V.

**508.—Gustafson,** P. V., **Agar,** H. D. & **Cramer,** D. I. An electron microscope study of *Toxoplasma*. Amer. J. trop. Med. Hyg. **3** 1954 : 1008–1021 figs.

**509.—Gutierrez,** J. Experiments on Holotrichs from the bovine rumen. J. Protozool. **1** Suppl. 1954 : 9.

**510.—Gutierrez Ballesteros,** E., **Beltran,** E. & **Navarrete,** F. Busca de quistes de protozoarios parasitos del hombre en verduras para el consumo en el Distrito Federal, Mexico. Rev. Inst. Salubr. Enferm. trop. **14** 1954 : 47–51. [English summary.]

**511.—Gutierrez Ballesteros,** E., **Manzano,** J. & **Biagi,** F. Encuesta sobre toxoplasmosis en el grupo de debiles mentales. Rev. Inst. Salubr. Enferm. trop. **14** 1954 : 197–200. [English summary.]

**Gvozdenovitch,** M. *see* Simitch, T.

**Hable,** I. *see* Waletzky, E.

**Hack,** W. H. *see* Sanjurjo, D.

**Hackney,** A. L. *see* Gregg, J. H.

**512.—Hadži,** J. Uporedivanje spolne faze infusorija sa spolnim plodenjem kod turbelarija. [Comparison between sexual phase of ciliates and turbellaria]. Rad Jugoslav. Akad. Znan., Zagreb **280** 1950 : 31–53. [In Croat.]

**513.—Hagn,** H. Die Foraminiferen der Pinswanger Schichten (Unteres Obercampan). Ein Beitrag zur Mikropalaeontologie der helvetischen Oberkreide Sudbayerns. Palaeontographica **104A** (1–3) 1953 : 1–119 figs.

**514.—Hagn,** H. Some Eocene foraminifera from the Bavarian Alps and adjacent areas. Contr. Cushman Fdn. **5** (1) 1954 : 14–20 figs.

**515.—Hagn,** H. Einführung in das Studium der Foraminiferen. Mikrokosmos **43** 1954 : 154–157 figs.

**516.—Hagn,** H. Einführung in das Studium der Foraminiferen. II. Gewinnung und Aufbewahrung des Materials. Mikrokosmos **43** 1954 : 254–257.

**517.—Hagn,** H. Einführung in das Studium der Foraminiferen. III. Bau und Beschaffenheit der Gehäusewand von Foraminiferen. Mikrokosmos **44** 1954 : 25–31 figs.

**518.—Haiba,** M. H. The pH of the alimentary tract in normal and *Giardia*-infected culture mice. Parasitology **44** 1954 : 387–391 figs.

**519.—Haley,** A. J. Further observations on *Glugea hertwigi* Weissenberg, 1911, 1913 (Microsporidia) in fresh water smelt in New Hampshire. J. Parasit. **40** 1954 : 482–483.

**520.—Hall,** R. P. Effects of ethylenediaminetetraacetic acid (EDTA) and certain metals on growth of *Tetrahymena pyriformis*. Proc. Soc. Protozool. **4** 1953 : 5.

**521.—Hall,** R. P. Effects of citrates and certain metals on growth of *Tetrahymena pyriformis* (H.). Proc. Soc. Protozool. **4** 1953 : 17.

**522.—Hall,** R. P. Effects of certain metal ions on growth of *Tetrahymena pyriformis* J. Protozool. **1** 1954 : 74–79 figs.

**523.—Hall,** R. P. Comparative growth-responses to calcium and magnesium in *Tetrahymena pyriformis*. J. Protozool. **1** Suppl. 1954 : 13.

**524.—Hall,** R. P. Data on the metal requirements of *Tetrahymena pyriformis*. Trans. N.Y. Acad. Sci. (2) **16** 1954 : 418–419.

**525.—Hallman,** F. A., **Michaelson,** J. B., **Blumenthal,** H. & **DeLamater,** J. N. Studies on the carbohydrate metabolism of *Endamoeba histolytica*. I. The utilization of glucose. Amer. J. Hyg. **59** 1954 : 128–131.

**Hallman,** F. A. *see* DeLamater, J. N.

**526.—Halpern,** B. & **Dolkart,** R. E. The effect of cold temperatures on the viability of cysts of *Endamoeba histolytica*. Amer. J. trop. Med. Hyg. **3** 1954 : 276–282 figs.

**Hammon,** W. McD. *see* Herman, C. M.

**Hammon,** W. McD. *see* Reeves, W. C.

**Hammond,** D. M. *see* Fitzgerald, P. R.

**527.—Hamon,** M. Note sur une grégarine parasite du tube digestif de *Sagitta lyra*. Bull. Soc. Hist. nat. Afr. N. **42** 1951 : 11–14 figs.

**528.—Hanson,** E. D. Studies on Kappa-like particles in sensitives of *Paramecium aurelia*, variety 4. Genetics **39** 1954 : 229–239.

**Hanson,** H. C. *see* Levine, N. D.

**529.—Hanzawa,** S. Notes on *Afghanella* and *Sumatrina* from Japan. Jap. J. Geol. Geogr. **24** 1954 : 1–14 figs.

**530.—Hara,** K., **Oka,** S., **Sawada,** T. & **Fuse,** M. Cyto-chemical observation on *Entamoeba histolytica*. (1) On the research into enzymes and fatty substances in *Entamoeba histolytica*. (2) On the research into carbohydrates in *Entamoeba histolytica*. Gunma J. med. Sci. **3** 1954 : 249–267 figs.

**Hara,** K. *see* Sawada, T.

**531.—Harboe,** A. & **Erichsen,** S. Toxoplasmosis in chickens. 3. Attempts to provoke a systemic disease in chickens by infection with a chicken strain and a human strain of *Toxoplasma*. Acta Path. microbiol. scand. **35** 1954 : 495–502.

**532.—Harding,** D. E. Certain responses of domesticated birds to infection with *Plasmodium lophurae* Coggeshall, 1938. Iowa St. Coll. J. Sci. **28** 1954 : 329–331.

**533.—Harinasuta,** C. & **Maegraith,** B. G. Proteolytic enzyme activity of *Entamoeba histolytica*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 285.

**Harinasuta,** C. *see* Maegraith, B. G.

**534.—Harnisch,** O. Gas—Emission im Körper von Tieren. Naturwissenschaften **40** (6) 1953 : 192–196.

**535.—Harris,** *jr.*, J. P. The parasites of *Necturus*. [Incl. protozoa]. Field & Lab. **22** (2) 1954 : 52–58.

**536.—Harris,** R. W. & **Sutherland,** B. W. A new foraminiferal genus and species from the Midway Formation of South-west Arkansas. Proc. Okla. Acad. Sci. **33** 1952 : 207–208 figs.

**537.—Hartig,** W. J. & **Lilly,** D. M. Bacteria-free cultures of *Paramecium caudatum*. J. Protozool. **1** Suppl. 1954 : 10.

**Hartman,** E. *see* Menolasino, N. J.

**538.—Hartmann,** M. Die Befruchtungsvorgänge der hypermastiginen Flagellaten und ihre theoretische Bedeutung. Arch. Protistenk. **99** 1954 : 327–358 figs.

**Hausmann,** R. L. *see* Freitas, G. de.

**539.—Havlik,** O. & **Zastěra,** M. [Toxoplasmosis as a focal infection]. Československ. Hyg., Epidem., Mikrobiol., Imunol. **3** 1954 : 214–218 figs. [With English summary.]

**540.—Hawking,** F. Milk, *p*-aminobenzoate, and malaria of rats and monkeys. Brit. med. J. I **1954** : 425–429.

**541.—Hawking,** F. Malaria and *p*-aminobenzoic acid (P.A.B.) in the diet. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 10.

**542.—Hawking,** F. Malaria and P.A.B. in the diet. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 274–275.

**543.—Hawking,** F. & **Mellanby,** H. Mosquito transmission of *Plasmodium knowlesi*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 10.

**Hawking,** F. *see* Boyd, J. S. K.

**544.—Hayes,** F. A. & **Thorson,** R. E. Protozoan parasites of the chinchilla in the South-eastern United States. J. Parasit. **40** 1954 : Suppl. 20.

**Hayes,** R. E. *see* Elliott, A. M.

**Hayes,** R. E. *see* Ray, D. L.

**545.—Haynes,** J. Taxonomic position of some British Palaeocene Buliminidae. Contr. Cushman Fdn. **5** (4) 1954 : 185–191 figs.

**546.—Haynes,** J. Note on *Bulimina elongata* d'Orbigny. Micropaleontologist **8** (3) 1954 : 57.

**547.—Hein,** G. Über *Euglena mutabilis* und ihr Verhalten zu sauren Medien. Arch. Hydrobiol. **47** (4) 1953 : 516–525 figs.

**Heinemann,** W. *see* Bartenstein, H.

**548.—Heinrich,** H. C. & **Lahann,** H. Eine hochempfindliche spektrophotometrische Auswertemethode zur mikrobiologischen Bestimmung der $B_{12}$-Vitamine mit *Euglena gracilis* var. *bacillaris*. Z. Naturf. **7B** (7) 1952: 417–418.

**549.—Heisch,** R. B. Presence of "*Plasmodium*" *brodeni* in Elephant Shrews (*Elephantulus* sp.). E. Afric. med. J. **31** 1954 : 263–264.

**550.—Heisch,** R. B. Studies in leishmaniasis in East Africa. I. The epidemology of an outbreak of Kala-azar in Kenya. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 449–469.

**Heitmanek,** C. *see* Bonciu, G.

**551.—Helmick,** R. W. A study of the separation of pigments of *Euglena* 9 by chromatographic adsorption techniques and a determination of their adsorption spectra. Proc. Iowa Acad. Sci. **60** 1954 : 645–655 figs.

**552.—Hemming,** F. Report on the status of the generic name *Stentor* Oken 1815. Bull. zool. Nom. **9** 1954 : 214–218.

**553.—Hemming,** F. Determination of the gender to be attributed to certain generic names placed on the Official List of generic names in Zoology—*Nummulites* Lamarck 1801. Opin. int. Comm. zool. Nom. **3** 1954 : 417–426.

**554.—Hendlin,** D. The nutrition of microorganisms. Annu. Rev. Microbiol. **8** 1954 : 47–70.

**555.—Henry,** A. F. X. Sur la théorie et les principes du sérodiagnostic du paludisme. Étude critique. Riv. Malariol. **33** 1954 : 63–88.

**556.—Henry,** A. F. X. Hémozoine mélanique et séroflocculation palustre. [*Plasmodium*]. Riv. Malariol. **33** 1954 : 89–99.

**Henshaw,** C. T. *see* Wilkins, J. R.

**557.—Herin,** V. V. & **Thienpont,** D. Note préliminaire concernant la pathogénie de la globidiose bovine. Ann. Soc. Belge Méd. trop. **34** 1954 : 111–112 fig.

**558.—Herman,** C. M. & **Price,** D. L. *Hepatozoon* in Gray Squirrels (*Sciurus carolinensis*). J. Protozool. **1** Suppl. 1954 : 11.

**559.—Herman,** C. M., **Reeves,** W. C., **McClure,** H. E., **French,** E. M. & **Hammon,** W. McD. Studies on avian malaria in vectors and hosts of encephalitis in Kern County, California. I. Infections in avian hosts. Amer. J. trop. Med. Hyg. **3** 1954 : 676–695.

**Herman,** C. M. *see* Diamond, L. S.

**Hernandez,** T. *see* Myatt. A. V.

**Herold,** R. C. *see* Reeves, W. C.

**Herrera,** J. *see* Margalef, R.

**Herrick,** C. A. *see* Levine, L.

**560.—Herzberg,** K., **Herzberg-Kremmer,** H. & **May,** G. Weitere Untersuchungen über *Pneumocystis carinii* bei Säuglingspneumonien. Zbl. Bakt. (I. Orig.) **160** 1954 : 661–670 figs.

**Herzberg-Kremmer,** H. *see* Herzberg, K.

**561.—Hewitt,** R. I., **Wallace,** W. S., **Gumble,** A., **White,** E. & **Williams,** J. H. Antimalarial activity of dihydrotriazines. Amer. J. trop. Med. Hyg. **3** 1954 : 225–231.

**562.—Highman,** B., **Greenberg,** J. & **Coatney,** G. R. Pathological changes produced by *Plasmodium berghei* in resistant and non-resistant strains of mice. Riv. Parassit. **15** 1954 : 449–459 figs.

**563.—Hill,** W. C. O. Report of the Society's Prosector for the year 1953 [Protozoa]. Proc. zool. Soc. Lond. **124** 1954 : 304–311.

**564.—Hill,** W. C. O. & **Neal,** R. A. An epizootic due to *Entamoeba invadens* at the Gardens of the Zoological Society of London. Proc. zool. Soc. Lond. **123** 1954 : 731–737 figs.

**565.—Hilmbauer,** K. Zellphysiologische Studien an Euglenaceen, besonders an *Trachelomonas*. Protoplasma **43** 1954 : 192–227 figs.

**566.—Hiltermann,** H. Stratigraphische Fragen des Campan und Maastricht unter besonderer Berücksichtigung der Mikropaläontologie. [Foraminifera]. Geol. Jahrb. **67** 1953 : 47–66 figs.

**567.—Hiltermann,** H. News—Germany. [Foraminifera]. Micropaleontologist **8** (2) 1954 : 16–26.

**568.—Hiltermann,** H. & **Koch,** W. Taxonomie und Vertikalverbreitung von *Bolivinoides*-Arten im Senon Nordwestdeutschlands. Geol. Jahrb. **64** [1943–48] 1950 : 595–632 figs.

**Hiregaudar,** L. S. *see* Rao, S. R.

**569.—Hirschmann,** H. & **Partsch,** K. *Trichodina domerguei* (Wallengren), ein selten schöner Parasit. an Fischen. Microcosmos **43** 1954 : 73–77 figs.

**Hoagland,** R. A. *see* Pace, D. M.

**570.—Hoare,** C. A. [Discussion on animal trypanosomiases]. An. Inst. Med. trop. Lisbon **9** 1952 [1954] : 763–764.

**571.—Hoare,** C. A. [Discussion on leishmaniasis]. An. Inst. Med. trop. Lisbon **9** 1952 [1954] : 1505–1506.

**572.—Hoare,** C. A. The loss of the kinetoplast in trypanosomes, with special reference to *Trypanosoma evansi*. J. Protozool. **1** 1954 : 28–33 figs.

**573.—Hoare,** C. A. The spread of African trypanosomes beyond the tsetse belt. Proc. Linn. Soc. Lond. **165** 1954 : 74–75.

**574.—Hoare,** C. A. The revival of *Trypanosoma suis*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 366.

**575.—Hoare,** C. A. [Discussion on reservoir hosts in leishmaniasis]. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 465–466.

**Hönig,** G. *see* Monné, L.

**576.—Hoffman,** G. L. Polyvinyl alcohol-fixative-adhesive for small helminths and protozoa. Trans. Amer. micr. Soc. **73** 1954 : 328–329.

**577.—Hofker,** J. The forming of species of Foraminifera during the Upper Cretaceous. Arch. néerl. Zool. **10** 1954 : 516–518.

**578.—Hofker,** J. The toothplate of *Ceratobulimina*. Contr. Cushman Fdn. **5** (4) 1954 : 147–148 fig.

**579.—Hofker,** J. The taxonomic position of *Allomorphina trigona* Reuss. Contr. Cushman Fdn. **5** (4) 1954 : 149–150 fig.

**580.—Hofker,** J. Morphology of *Globigerinatella insueta* Cushman and Stainforth. Contr. Cushman Fdn. **5** (4) 1954 : 151–152.

**581.—Hofker,** J. On Tertiary *Gumbelina* and some species of *Bolivina*. Micropaleontologist **8** (1) 1954 : 29–30.

**582.—Hofker,** J. Chamber arrangement in foraminifera. Micropaleontologist **8** (1) 1954 : 30–32.

**583.—Hofker,** J. *Candorbulina universa* Jedlitschka and *Orbulina universa* d'Orbigny. Micropaleontologist **8** (2) 1954 : 38–39.

**584.—Hofker,** J. The Family Marginolamellidae Hofker 1951. Micropaleontologist **8** (3) 1954 : 50–51.

**585.—Hofker, J.** Publishing on Foraminifera. Micropaleontologist **8** (4) 1954 : 26–27.

**586.—Hofker, J.** Notes on the generic names of some Rotaliform Foraminifera. Micropaleontologist **8** (4) 1954 : 34–35.

**Hofman, U.** *see* Nemetschek, T.

**587.—Hollande, A.** Compléments sur la cytologie des Acanthaires et des Radiolaires. In : Traité de Zoologie, Paris **1** (2) 1953 : 1089–1100 figs.

**588.—Hollande, A. & Enjumet, M.** Contribution à l'étude biologique des Sphaerocollides (Radiolaires collodaires et Radiolaires polycyttaires) et de leurs parasites. Ann. Sci. nat. (Zool.) (11) **15** 1953 : 99–183 figs.

**589.—Hollande, A. & Enjumet, M.** Morphologie et reproduction de *Trichomonas aulacodi* nov. sp. parasite de *Trionomys* (*Aulacodus*) *swinderianus* Temminck. Étude du cycle chromosomique. Ann. Sci. nat. (Zool.) (11) **15** 1953 : 439–447 figs.

**590.—Hollande, A. & Enjumet, M.** Morphologie et affinités du Radiolaire *Sticholonche zanclea* Hertwig. Ann. Sci. nat. Zool. (11) **16** 1954 : 337–342 figs.

**591.—Hollande, A. & Enjumet, M.** Sur l'existence d'axopodes et d'un complexe centroplastique chez les Radiolaires. C.R. Acad. Sci., Paris **238** 1954 : 1841–1843 figs.

**Holt, C. J.** *see* Rendtorff, R. C.

**592.—Holter, H.** Distribution of some enzymes in the cytoplasm of amoebae. Proc. roy. Soc. **142B** (907) 1954 : 140–146 fig.

**593.—Holz** *jr.*, G. G. The effects of fluoracetate poisoning in certain phytoflagellates. Proc. Soc. Protozool. **4** 1953 : 12.

**594.—Holz** *jr.*, G. G. The oxidative metabolism of a cryptomonad flagellate, *Chilomonas paramecium*. Proc. Soc. Protozool. **4** 1953 : 20–21.

**595.—Holz** *jr.*, G. G. The oxidative metabolism of a cryptomonad flagellate, *Chilomonas paramecium*. J. Protozool. **1** 1954 : 114–120.

**596.—Holz, J.** Zur Diagnostik der Toxoplasmose des Hundes. Tierärztl. Umschau **8** 1953 : 88–89.

**597.—Holz, J.** Die Bedeutung von *Musca domestica* als Ueberträger von *Trichomonas foetus*. Tierärztl. Umschau **8** 1953 : 396–397 figs.

**598.—Holz, J.** Ueber *Toxoplasma gondii* und seine Affinität zu den Geweben des Wirtes. Acta trop. **11** 1954 : 354–378 figs.

**599.—Holz, J.** Ueber die oberflächliche Struktur der Coccidien-Oocysten. Tierärztl. Umschau **9** 1954 : 157–159 figs.

**600.—Holz, J.** Elektronenmikroskopische Untersuchungen über die Wirksamkeit verschiedener Waschmittel auf die Oocysten einiger Coccidienarten. Tierärztl. Umschau **9** 1954 : 415–419 figs.

**Holz, J.** *see* Bringmann, G.

**601.—Honigberg, B. M.** Intestinal flagellates of *Plethodon* (Amphibia ; Caudata). Proc. Soc. Protozool. **4** 1953 : 16.

**602.—Honigberg, B. M.** A transient infection of a salamander with flagellates of the wood-feeding roach, *Cryptocercus punctulatus*. Proc. Soc. Protozool. **4** 1953 : 16–17.

**603.—Honigberg, B. M.** The parabasal apparatus of *Trichomonas vaginalis* Donné. J. Protozool. **1** Suppl. 1954 : 14.

**604.—Honigberg, B. M. & Christian, H. H.** Characteristics of *Hexamastix batrachorum* (Alexeieff). J. Parasit. **40** 1954 : 508–514 figs.

**605.—Hopper, S. H. & McCowen, M. C.** Flotation—a new method for the purification of water and the removal of cysts of *Endamoeba histolytica*. J. Parasit. **40** 1954 : Suppl. 31.

**606.—Hornibrook, N. de B.** News—New Zealand. [Foraminifera]. Micropaleontologist **8** (1) 1954 : 21.

**607.—Hornibrook, N. de B. & Vella, P.** Notes on the generic names of some Rotaliform foraminifera. Micropaleontologist **8** (1) 1954 : 24–28.

**Hornibrook, N. de B.** *see* Wellmann H. H.

**608.—Horwitz, E., Artigas, J. & Silva, R.** Some observations about intestinal parasites in irrigation water. [Including protozoa]. Bol. Chil. Parasit. **9** 1954 : 99–105. [Spanish with English summary.]

**609.—Hoshino, M.** [On the geology around Ukawa and Anamizu in the Noto Peninsula]. [Foraminifera]. J. Geol. Soc. Japan **56** (656) 1950 : 305. [Abstract : in Japanese].

**610.—Hoside, H.** Studies on Cephaline gregarines from Chilopoda. I. Zool. Mag., Tokyo **61** 1952 : 195–200 figs.

**611.—Hovasse, M. R.** Nombre de chromosomes. [Protozoa]. Bull. Soc. zool. Fr. **79** 1954 : 8–12 fig.

**612.—Hovasse, R. & Brown, E. M.** Contribution à la connaissance des Radiolaires et de leurs parasites Syndiniens. Ann. Sci. nat., Zool. (11 ser.) **15** 1953 : 405–438 figs.

**613.—Howell, J. F.** *Gonyaulax monilata* sp. nov., the causative dinoflagellate of a red tide on the East coast of Florida in August-September 1951. Trans. Amer. micr. Soc. **72** 1953 : 153–156 figs.

**614.—Huber-Pestalozzi, G.** Über die Organisationsstufen bei den Euglenінen. Schweiz. Z. Hydrol. **16** (1) 1954 : 22–26.

**615.—Hucke, K.** Neuzeitliches Arbeitsgerät für Mikropaläontologen. [Foraminifera]. Mikrokosmos **40** (3) 1950 : 74–77.

**616.—Hudson, R. G. S., McGugan, A. & Morton, D. M.** The structure of the Jebel Hagab area, Trucial Oman. [Protozoa]. Quart. J. geol. Soc. Lond. **110** (2) 1954 : 121–152 figs.

**617.—Huff, C. G.** Merozoite size in exoerythrocytic infections of *Plasmodium gallinaceum, P. fallax, P. lophurae*, and *P. cathemerium*. Exper. Parasit. **3** 1954 : 433–444.

**618.—Huff, C. G.** Changes in host-cell preferences in malarial parasites and their relation to splenic reticular cells. J. inf. Dis. **94** 1954 : 173–177.

**Huhtanen, C. N.** *see* Barber, F. W.

**619.—Hukui, T.** On a gregarine, *Hoplorhynchus bourniensis* sp. nov. from *Otocryptops rubiginosus* Koch. Zool. Mag., Tokyo **61** 1951 : 278–280 fig. [Japanese with English summary].

**620.—Hukui, T. & Nisida, K.** On *Dasytricha hukuokaensis* n. sp. Zool. Mag., Tokyo **63** 1954 : 367–369.

**621.—Hull, R. W.** Observations on Suctoria : the morphology and life cycle of *Solenophrya micraster* Penard, 1914. Proc. Soc. Protozool. **4** 1953 : 12.

**622.—Hull, R. W.** Observations on Suctoria : contractile vacuolar rate changes during feeding and reproduction in *Solenophrya micraster* Penard 1914. Proc. Soc. Protozool. **4** 1953 : 20.

**623.—Hull, R. W.** The morphology and life cycle of *Solenophrya micraster* Penard 1914. J. Protozool. **1** 1954 : 93–104 figs.

**624.—Hull, R. W.** Feeding processes in *Solenophrya micraster* Penard 1914. J. Protozool. **1** 1954 : 178–182.

**625.—Hull, R. W.** The probable synonymy of *Discophrya piriformis* Guilcher and *Podophrya collini* Root. J. Protozool. **1** Suppl. 1954 : 6.

**626.—Hull, R. W.** The occurrence of Suctoria in the Chicago area. J. Protozool. **1** Suppl. 1954 : 12.

**Hunter, G. W.** *see* Mackie, T. T.

**627.—Hutchinson, M. P.** The epidemiology of human trypanosomiasis in British West Africa. III. Sierra Leone. Ann. trop. Med. Parasit. **48** 1954 : 75–94 figs.

**628.—Hutner, S. H., Provasoli, L. & Filfus, J.** Nutrition of some phagotrophic fresh-water chrysomonads. Ann. N.Y. Acad. Sci. **56** (5) 1953 : 852–862.

**Hutner, S. H.** *see* Baker, H.

**Hutner, S. H.** *see* Nathan, H. A.

**Hutner, S. H.** *see* Storm, J.

**Iimura, M.** *see* Ishii, N.

**629.—Imamura, G. & Tai, Y.** [General review of the Tertiary strata of the North Hiroshima Prefecture] [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 299–300. [Abstract—in Japanese.]

**630.—Ineson,** M. J. A comparison of the parasites of wild and domestic pigs in New Zealand. [Incl. protozoa]. Trans. Roy. Soc. N.Z. **82** 1954 : 579–609 figs.

**631.—Ippolito,** F., **Lucini,** P. & **Spada,** A. Osservazioni geologiche sulla zona di Monticchio nella bassa valle dell' Agri (Basilicata). [Foraminifera]. R.C. Acad. Lincei (8) **16** (1) 1954 : 92–100 figs.

**Isa,** J. M. *see* Savage, A.

**632.—Ishii,** N. & **Iimura,** M. Observations on the parasitological findings and transmitting agents of endemic amebiasis. Yokohama med. Bull. **3** 1952 : 279–290 figs.

**633.—Iversen,** E. S. A new myxosporidian, *Myxosoma squamalis*, parasite of some Salmonid fishes. J. Parasit. **40** 1954 : 397–404 figs.

**634.—Iwahori,** S. [On Tertiary strata in Toki Basin, Gifu Prefecture] [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 297–298. [Abstract in Japanese].

**635.—Jacob,** E. Methodische Krankheits-Bekämpfung und-Verhütung bei Zootieren. [Incl. protozoal infections]. Zool. Gart., Leipzig (N.F.) **19** 1952 : 243–248 figs.

**636.—Jacobs,** L. & **Cook,** M. K. Variations in the dye test for toxoplasmosis. Amer. J. trop. Med. Hyg. **3** 1954 : 860–867.

**637.—Jacobs,** L., **Cook,** M. K. & **Neumann,** E. Serological survey data on the prevalence of toxoplasmosis in the Jewish population of New York. J. Parasit. **40** 1954 : 701–702.

**638.—Jacobs,** L. & **Melton,** M. L. Modifications in virulence of a strain of *Toxoplasma gondii* by passage in various hosts. Amer. J. trop. Med. Hyg. **3** 1954 : 447–457.

**639.—Jacobs,** L., **Melton,** M. L. & **Cook,** M. K. Observations on toxoplasmosis in dogs. J. Parasit. **40** 1954 : Suppl. 20–21.

**640.—Järnefelt,** H. Der Vihtajärvi. Ein durch die Abwässer einer Pulverfabrik azidotrophierter See. Hydrobiologia **4** (3) 1952 : 268–288.

**641.—Jakowska,** S., **Nigrelli,** R. F. & **Alperin,** I. A new *Henneguya* in the North Atlantic Weakfish, *Cynoscion regalis*. J. Protozool. **1** Suppl. 1954 : 13.

**Jakowska,** S. *see* Padnos, M.

**Jamikorn,** M. *see* Goodwin, T. W.

**642.—Janiszewska,** J. *Siedleckiella silesica* n.g., n.sp. Actinomyxidia (Cnidosporidia). Zool. Polon. **6** 1953 : 49–56 figs.

**643.—Jara,** F. de la. La resistencia de *Plasmodium* a los medicamentos antipaludicos. Ciencia, Mexico **14** 1954 : 193–197.

**644.—Jaswant Singh.** A written symposium on *Plasmodium berghei* Vincke and Lips, 1948. Introduction. Indian J. Malariol. **8** 1954 : 237–240.

**645.—Jaswant Singh, Chandrasekhar,** G. R., **Bami,** H. L. & **Ray,** A. P. Screening of antimalarials against *P. gallinaceum* in chicks. Pt. IV. Indian J. Malariol. **8** 1954 : 1–8.

**646.—Jaswant Singh, Nair,** C. P., **David,** A. & **Krishnan,** K. S. Natural immunity of domestic pigeons (*Columba livia* Gmelin) to experimental infections with *P. gallinaceum*. Indian J. Malariol. **8** 1954 : 117–126.

**647.—Jaswant Singh, Nair,** C. P. & **Ray,** A. P. Studies on Nuri strain of *P. knowlesi*. III. Morphology and transmission. Indian J. Malariol. **8** 1954 : 155–164 figs.

**648.—Jaswant Singh, Nair,** C. P. & **Ray,** A. P. Studies on Nuri strain of *P. knowlesi*. IV. Periodicity. Indian J. Malariol. **8** 1954 : 165–185.

**649.—Jaswant Singh, Nair,** C. P. & **Ray,** A. P. Studies on Nuri strain of *P. knowlesi*. V. Acquired resistance to pyrimethamine. Indian J. Malariol. **8** 1954 : 187–195.

**650.—Jaswant Singh** & **Ramakrishnan,** S. P. Need for a fresh approach on relapse mechanism in malaria. Indian J. Malariol. **8** 1954 : 197–202.

**651.—Jaswant Singh, Ramakrishnan, S. P., Prakash, S. & Bhatnagar, V. N.** Studies on *Plasmodium berghei* Vincke and Lips, 1948. XX. A physiological change observed in sulphadiazine resistant strain. Indian J. Malariol. **8** 1954 : 301–307.

**652.—Jaswant Singh, Ray, A. P. & Nair, C. P.** Isolation of a new strain of *Plasmodium knowlesi*. Nature, Lond. **172** 1953 : 122.

**Jayaraman, R.** *see* Prasad, R.R.

**653.—Jeffery, G. M.** The Donaldson strain of malaria. 3. The infection in the mosquito. Amer. J. trop. Med. Hyg. **3** 1954 : 651–659.

**654.—Jeffery, G. M., Burgess, R. W. & Eyles, D. E.** Susceptibility of *Anopheles quadrimaculatus* and *A. albimanus* to domestic and foreign strains of *Plasmodium vivax*. Amer. J. trop. Med. Hyg. **3** 1954 : 821–824.

**655.—Jeffery, G. M. & Eyles, D. E.** The duration in the human host of infections with a Panama strain of *Plasmodium falciparum*. Amer. J. trop. Med. Hyg. **3** 1954 : 219–224.

**656.—Jeffery, G. M. & Young, M. D.** The Donaldson strain of malaria. 4. An evaluation and status. Amer. J. trop. Med. Hyg. **3** 1954 : 660–664.

**657.—Jeffery, G. M., Young, M. D. & Wilcox, A.** The Donaldson strain of malaria. 1. History and characteristics of the infection in man. Amer. J. trop. Med. Hyg. **3** 1954 : 628–637.

**Jeffery, G. M.** *see* Wilcox, A.

**658.—Jepps, M. W.** Nuclei of *Cycloclypeus carpenteri* Brady. Nature, Lond. **171** 1953 : 1114–1115 figs.

**659.—Jerace, F.** Il centenario della nascita di G. B. Grassi (1854–1954). Riv. Malariol. **33** 1954 : 101.

**Jira, J.** *see* Jirovec, O.

**660.—Jirovec, O.** Neues ueber die durch *Pneumocystis carinii* verursachten interstitiellen Pneumonien der Säuglinge. Riv. Parassit. **15** 1954 : 473–480 figs.

**661.—Jirovec, O. & Jira, J.** Versuch einer einheitlichen Auffassung der Epidemiologie und Pathogenese der Toxoplasmose. Zbl. Bakt. (I. Abt.) **161** 1954 : 521–531 figs. [English summary.]

**662.—Jirovec, O. & Sosna, M.** Wirkung des Sonnenlichtes auf einige frei lebende Protisten. Čsl. Biol. **3** (2) 1954 : 119–126 figs. [German summary.]

**Johansen, E.** *see* Wantland, W. W.

**663.—Johnson, H. A.** A study of water supplies in Fayette County, Tennessee, especially as relating to the prevalence of intestinal amoebae. J. Tenn. Acad. Sci. **29** 1954 : 12–16 figs.

**Jonchère, H.** *see* Vaucel, M.

**Jones, B. C.** *see* Riveroll, D. D.

**664.—Jones, F. E., Smith, C. S. & Eyles, D. E.** Epidemiological study of *Endamoeba histolytica* and other intestinal parasites in the New Hope Community of Tennessee. Amer. J. trop. Med. Hyg. **3** 1954 : 266–275.

**Jones, F. E.** *see* Eyles, D. E.

**Joyner, L. P.** *see* Crowther, S.

**Jumper, J. R.** *see* Eyles, D. E.

**665.—Kaltenbach, A.** Untersuchungen zur Kenntnis der Zytologie von *Trypanosoma evansi* Steel. Öst. zool. Z. **4** 1954 : 449–459 figs.

**666.—Kamptner, E.** Das mikroscopische Studium des Skelettes der Coccolithineen (Kalkflagellaten). Übersicht der Methoden und Ergebnisse. I. Die Gestalt des Gehäuses und seiner Bauelemente. Mikroskopie **7** (7–8) 1952 : 232–237 figs.

**667.—Kamptner, E.** Zur Frage des geologischen Alters der Coccolithineen und ihrer Eignung für Fossile Erhaltung. Anz. öst. Akad. Wiss. **90** 1953 : 184–188.

**668.—Kamptner, E.** Untersuchungen über den Feinbau der Coccolithen. Arch. Protistenk. **100** 1954 : 1–90 figs.

**Kangi, T.** *see* Lambillon, J.

**Kar, A. E.** *see* Chak, I. M.

**669.—Kartman, L.** Observations on *Trypanosoma lewisi* and *Grahamella* sp. in the blood of rats from the Hamakua district, Island of Hawaii. J. Parasit. **40** 1954 : 571–579 figs.

**670.—Kasparzak,** W. & **Pawlowski,** Z. The laboratory coprological methods in the light of the literature and own experiments. [Intestinal protozoa]. Acta Parasit. Polon. **2** 1954 : 97–127. [Polish with English summary.]

**671.—Katashima,** R. Study on the Astomata (Ciliata, Protozoa). Zool. Mag., Tokyo **59** 1950 : 196–199. [In Japanese.]

**672.—Katashima,** R. Study on the Astomata (Ciliata, Protozoa). II. Zool. Mag., Tokyo **61** 1952 : 22. [In Japanese.]

**673.—Katashima,** R. Study on the Astomata. III. Zool. Mag., Tokyo **61** 1952 : 33–37 figs. [In Japanese.]

**674.—Katashima,** R. Studies on the ciliates, *Ptychostomum*, from the intestine of the earthworms. Zool. Mag., Tokyo **61** 1953 : 205–209 figs. [Japanese with English summary.]

**Katz,** M. *see* Davison, R. C.

**675.—Kaudewitz,** F. Phosphoraufnahme und Phosphorabgabe bei *Paramecium aurelia*. Z. Naturf. **88** (9) 1953 : 500–512 figs.

**676.—Kaudewitz,** F. Untersuchung des Einflusses von Meter-und Kilometerwellen auf die Generationsdauer einiger Protozoen. Z. Naturf. **9B** (2) 1954 : 145–148 figs.

**Kaudewitz,** F. *see* Friedrich-Freksa, H.

**Kaunat,** H. *see* Meier, K. E.

**677.—Kaunat,** K. Über die Wirkung von Antibiotika auf freilebende Infusorien (Paramaecien). Naturwissenschaften **41** (3) 1954 : 66.

**678.—Kawada,** S. Discovery of fusulinids in a Carboniferous coral from the Omi limestone in Niigata Prefecture. Nat. Sci. & Mus., Tokyo **21** (3–4) 1954 : 1–6 figs.

**679.—Keilin,** D. & **Ryley,** J. F. Haemoglobin in Protozoa. Nature, Lond. **172** 1953 : 451.

**680.—Kelly,** D. R., **Schumacher,** A. & **Schnitzer,** R. J. Experimental studies in trichomoniasis. III. Influence of the site of the immunizing infection with *Trichomonas vaginalis* on the immunity of mice to homologous reinfection by different routes. J. Immunol. **73** 1954 : 40–43.

**Kelly,** D. R. *see* Schnitzer, R. J.

**Khabir,** P. A. *see* Manwell, R. D.

**681.—Khajuria,** H. & **Pillay,** T. V. R. On a new species of *Zoothamnium* Stein (Protozoa : Vorticellidae) from the grey mullet *Mugil tade* Forsk. Rec. Indian Mus. **48** 1952 : 55–58 fig.

**682.—Kerr,** W. R. & **Robertson,** M. Passively and actively acquired antibodies for *Trichomonas foetus* in very young calves. J. Hyg. **52** 1954 : 253–263.

**683.—Kessel,** J. F., **Parrish,** M. & **Parrish,** G. Intestinal protozoa, helminths and bacteria in Tahiti, French Oceania. Amer. J. trop. Med. Hyg. **3** 1954 : 440–446.

**684.—Ketterer,** J. J. A note on the taxonomy of *Crithidia fasciculata* Léger, 1902. Proc. Soc. Protozool. **4** 1953 : 17.

**685.—Kheissin,** E. M. [Certain regularities in the host distribution of parasitic Astomatous infusoria]. Sci. Notes Leningrad Pedagog. Inst. **70** 1948 : 23–48 figs. [In Russian.]

**686.—Kheissin,** E. M. [Role of moles in the spread of Monocystidae of earthworms]. Sci. Notes Leningrad Pedagog. Inst. **70** 1948 : 171–174. [In Russian.]

**687.—Kidder,** G. W., **Dewey,** V. C. & **Fuller,** R. C. Nitrogen requirements of *Glaucoma scintillans* and *Colpidium campylum*. Proc. Soc. exp. Biol. N.Y. **86** (4) 1954 : 685–689 figs.

**Kihara,** J. T. *see* Stabler, R. M.

**688.—Kilfoyle,** C. F. Catalog of type specimens of fossils in the New York State Museum. Supplement 4. [Foraminifera, etc.]. Bull. N.Y. St. Mus. **348** 1954 : 1–719.

**689.—Kimball,** R. F. The structure of the macronucleus of *Paramecium aurelia*. Proc. nat. Acad. Sci. Wash. **39** (4) 1953 : 345–347.

**690.—Kimball,** R. F. & **Gaither,** N. Influence of oxygen upon genetic and nongenetic effects of ionizing radiation on *Paramecium aurelia*. Proc. Soc. exp. Biol., N.Y. **82** (3) 1953 : 471–477 figs.

**691.—Kimball, R. F. & Gaither, N.** The dominant lethal problem in *Paramecium aurelia*. Genetics **38** 1954 : 673–674.

**Kimball, R. F.** *see* Geckler, R. P.

**692.—King, R. L.** Multiple pores and contractile vacuoles in *Paramecium aurelia*. Proc. Soc. Protozool. **4** 1953 : 16.

**693.—King, R. L.** Origin and morphogenetic movements of the pores of the contractile vacuoles in *Paramecium aurelia*. J. Protozool. **1** 1954 : 121–130 figs.

**694.—Kinosita, H.** Electric potentials and ciliary response in *Opalina*. J. Fac. Sci. Tokyo Univ. (Zool.) **7** 1954 : 1–14 figs.

**695.—Kirby, H.** On the need for validating the name *Stentor* Oken, 1815 (Class Ciliophora) for use in its accustomed sense. Bull. zool. Nom. **9** 1954 : 208–214.

**696.—Kitching, J. A.** Observations on the mechanism of feeding in the suctorian *Podophrya*. J. exp. Biol. **29** (2) 1952 : 255–266 figs.

**697.—Kitching, J. A.** Effects of high hydrostatic pressure upon *Discophrya piriformis* Guilcher. Proc. Soc. Protozool. **4** 1953 : 15.

**698.—Kitching, J. A.** Notes on the mechanism of vacuolar contraction. [Suctoria]. Proc. Soc. Protozool. **4** 1953 : 16.

**699.—Kitching, J. A.** The effects of high hydrostatic pressures on a suctorian. J. exp. Biol. **31** (1) 1954 : 56–67 figs.

**700.—Kitching, J. A.** The physiology of contractile vacuoles. IX. Effects of sudden changes in temperature on the contractile vacuole of a suctorian ; with a discussion of the mechanism of contraction. J. exp. Biol. **31** (1) 1954 : 68–75 figs.

**701.—Kitching, J. A.** The physiology of contractile vacuoles. X. Effects of high hydrostatic pressure on the contractile vacuole of a suctorian. J. exp. Biol. **31** (1) 1954 : 76–83 figs.

**702.—Kitching, J. A.** Combined effects of high hydrostatic pressure and ethanol on amoebae. J. Protozool. **1** Suppl. 1954 : 13.

**703.—Kitching, J. A.** Further observations on the expansion of the cuticle of the suctorian *Discophrya piriformis* Guilcher. J. Protozool. **1** Suppl. 1954 : 13.

**Klain, A.** *see* Lee, J. W.

**704.—Klasz, I. de.** *Quadratobuliminella* n. gen., ein neue Foraminiferengattung von der Wende Kreide-Tertiär. N. Jb. Geol. Paläont. B. **10** 1953 : 434–436 fig.

**705.—Kleinpell, R. M.** Neogene smaller Foraminifera from Lau, Fiji. Bull. Bishop Mus. **211** 1954 : 1–96 figs.

**706.—Knierim, F.** Serologic study in animals experimentally infected with *Trypanosoma cruzi*. Bol. Chil. Parasit. **9** 1954 : 2–6. [Spanish with English summary.]

**Knierim, F.** *see* Pizzi, T.

**Koch, W.** *see* Hiltermann, H.

**Koenigswald, G. H. R. van** *see* Boschma, H.

**707.—Koike, K.** [On "The Kurotaki Unconformity"] [Foraminifera]. J. geol. Soc. Japan **57** (667) 1951 : 143–156. [In Japanese : English summary.]

**Kornder, J. D.** *see* Cole, C. R.

**708.—Kornicker, L. S.** Plastic models of Foraminifera. Contr. Cushman Fdn. **5** (3) 1954 : 107 fig.

**709.—Koševa, A. F.** [Parasitic fauna of the most important economic fishes in the Volga at Kuibyshev (etc.). (Incl. protozoa)]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 66–69. [In Russian.]

**Kossack, C. W.** *see* Levine, N. D.

**Kovalevski, S. A.** *see* Viktorova, R. E.

**710.—Kozloff, E. N.** Studies on an astomatous ciliate from a freshwater limpet, *Ferrissia peninsulae*. J. Protozool. **1** 1954 : 200–206 fig.

**711.—Kradolfer, F.** Experimental vaginal infection of hamsters with *Trichomonas foetus*. Exper. Parasit. **3** 1954 : 1–8 figs.

**712.—Krascheninnikow, S.** Observations on the division of *Eudiplodinium neglectum* Dogiel (1925) (Ciliata ; Entodiniomorpha). Proc. Soc. Protozool. **4** 1953 : 5–6.

**713.—Krascheninnikow,** S. Ciliates from the stomach of hog-deer (*Cervus porcinus*). Proc. Soc. Protozool. **4** 1953 : 17.

**Krau,** L. *see* Oliviera, L. H. P. de.

**714.—Krause,** P. G. Die Tiefbohrung Tilsit-Waldhof nebst Bemerkungen zur staatlichen Bohrung Labiau und zu einigen anderen ostpreussischen Bohrungen. [Foraminifera]. Jahrb. preuss. geol. Ld Anst. **59** 1939 : 370–422 figs.

**715.—Kreitmaier,** G. B-Vitamine und Aminosäuren als Wachstumsstimulanten bei *Paramecium caudatum* (Ehrbg.). Arch. Mikrobiol. **17** (3) 1952 : 300–318 figs.

**Krishnan,** K. S. *see* Jaswant Singh.

**716.—Krishnaswami,** A. K., **Prakash,** S. & **Ramakrishnan,** S. P. Studies on *Plasmodium berghei* Vincke and Lips, 1948. XV. Acquired resistance to sulphadiazine. Indian J. Malariol. **8** 1954 : 9–18.

**Krivanek,** J. O. *see* Gregg, J. H.

**Krueger,** K. K. *see* Endahl, G. L.

**717.—Krüger,** F., **Wohlfarth-Bottermann,** K. E. & **Pfefferkorn,** G. Protistenstudien III. Die Trichocysten von *Uronema marinum* Dujardin. Z. Naturf. **7B** (7) 1952 : 407–410 figs.

**Krüger,** F. *see* Wohlfarth-Bottermann, K. E.

**718.—Kudo,** R. R. On the cytoplasmic fibrils of *Lophomonas striata*. J. Protozool. **1** 1954 : 80–82 figs.

**719.—Kudrin,** L. N. [On Lower Tortonian oncoid-reef zones in the territory at the south-western edge of the Russian Platform]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **97** (2) 1954 : 305–306. [In Russian.]

**720.—Küpper,** K. Notes on Cretaceous larger foraminifera I. Genus *Orbitoides* in America. Contr. Cushman Fdn. **5** (2) 1954 : 63–67 figs.

**721.—Küpper,** K. Notes on Upper Cretaceous larger foraminifera. II. Genera of the Subfamily Orbitoidinae with remarks on the microspheric generation of *Orbitoides* and *Omphalocyclus*. Contr. Cushman Fdn. **5** (4) 1954 : 179–184 figs.

**Küpper,** K. *see* Papp, A.

**722.—Kufferath,** H. *Gonzeella coloniaris* n. gen., n. spec., Cilié coloniare péritriche du Congo Belge. Rev. Zool. Bot. Afr. **48** 1953 : 30–34 figs.

**723.—Kugler,** H. G. The Miocene-Oligocene Boundary in the Caribbean Region [Foraminifera]. Geol. Mag. **91** (5) 1954 : 410–414.

**724.—Kuhl,** W. Untersuchungen über die Cytodynamik der Plasmogamie und temporären "Plasmabrücken" bei *Actinosphaerium eichhorni* Ehrbg. unter Aenderung des Zeitfaktors mittels des Zeitrafferfilms. Protoplasma **42** (2) 1953 : 133–192 figs.

**725.—Kuhl,** W. Zeitrafferfilm-Untersuchungen über die Wirkung von Zentrifugierung über Pressung auf die Cytoplasmastrukturen den Plasmogamieablauf über die Zellrestitution bei *Actinosphaerium eichhorni* Ehrbg. Protoplasma **43** (1–2) 1954 : 3–62 figs.

**726.—Kulasiri,** C. Some studies on toxoplasmosis in Ceylon using the Westphal reaction (a complement fixation test). Ceylon J. med. Sci. **8** 1954 : 223–225.

**Kulda,** J. *see* Brož, O.

**Kun,** E. *see* Bradin *jr.*, T. L.

**727.—Kunert,** H. & **Schmidtke,** L. Zum Nachweis der Toxoplasmainfektion im Tierversuch. Z. Tropenmed. Parasit. **5** 1954 : 58–61. [English summary.]

**728.—Kunert,** H. & **Schmidtke,** L. Inhalationsversuche mit *Toxoplasma gondii*. Z. Tropenmed. Parasit. **5** 1954 : 324–329 figs. [English summary.]

**729.—Kuo,** T. S. On a new form of Fusulinid. Bull. geol. Soc. China **28** (3–4) 1949 : 233–234 fig.

**730.—Küpper,** K. Note on *Schlumbergerella* Hanzawa and related genera. Contr. Cushman Fdn. **5** (1) 1954 : 26–30 figs.

**731.—Kuwano,** Y. Studies on the recent Foraminifera from the sea around Japan. Part II. Misc. Rep. Res. Inst. nat. Resour. Tokyo **33** 1954 : 56–67 figs.

**La Cour,** L. F. *see* Davies, H. G.

**Lahann,** H. *see* Heinrich, H. C.

**732.—Lainson,** R. Natural infection of *Encephalitozoon* in the brains of laboratory rats. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 5.

**733.—Lainson,** R. Infection with *Toxoplasma* by oral route in the laboratory mouse, and subsequent involvement of the alimentary tract. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 282–283.

**Lainson,** R. *see* Awad, F. I.

**Lainson,** R. *see* Garnham, P. C. C.

**Laird,** R. L. *see* Porter, R. J.

**734.—Lambillon** J., **Kangi,** T. & **Petepete,** A. L'infection génitale à *Trichomonas* au Congo Belge. Ann. Soc. Belge Méd. trop. **34** 1954 : 183–190.

**Lambrecht,** F. L. *see* Berghe, L. van den.

**735.—Lamy,** L. & **Mossion,** X. Présence de *Giardia* chez le hamster doré. Bull. Soc. Path. exot. **47** 1954 : 783.

**Landman,** O. E. *see* Spiegelman, C.

**Lane,** W. F. *see* Pulvertaft, R. J. V.

**736.—Lang,** K. *Paragonospora typica* n. g., n. sp. from the body cavity of *Terebellides strömi* Lars. Ark. Zool. Stockholm **6** 1954 : 441–442 figs.

**737.—Lange,** F. W. News—Brazil [Foraminifera]. Micropaleontologist **8** (2) 1954 : 11–13.

**738.—Lanterno,** E. Étude géologique des environs de Champéry, Vol d'Illierz, Valais, Suisse. [Foraminifera]. Arch. Sci. Genève **6** (6) 1953 : 295–373 figs.

**739.—Lapchik,** F. E. [The age of the Permian deposits of the Dniepro-Donetz depression]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **97** (3) 1954 : 507–509. [In Russian.]

**740.—Lapierre,** J. *Plasmodium berghei* chez la souris : apparition d'un état d'immunité à la suite de traitements répétés par la nivaquine au cours des rechutes. Bull. Soc. Path. exot. **47** 1954 : 380–386.

**Lapierre,** J. *see* Galliard, H.

**Larivière,** M. *see* Galliard, H.

**Larrñaeta,** M. G. *see* Margalef, R.

**741.—Lavoipierre,** M. M. J. Malaria and P.A.B. in the diet. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 442.

**742.—Lawless,** D. K. A preliminary report on a rapid permanent mount stain technic for the diagnosis and recognition of intestinal protozoa. J. Egypt. med. Ass. **37** 1954 : 1202–1204.

**743.—Lawless,** D. K. Report on a human case of *Endamoeba polecki* Prowazek, 1912. J. Parasit. **40** 1954 : 221–228 figs.

**Lawlis** *jr.*, J. F. *see* McCowen, M. C.

**744.—Lazzari,** A. Sulla probabile presenza dell' Eocene nelle Murge baresi. [Foraminifera]. Boll. Soc. Nat. Napoli **61** 1953 : 23–25.

**745.—Lecal,** J. Richesse en microplancton estival des eaux Méditerranéennes de Port-Vendres à Oran. Vie et Milieu Suppl. **3** 1954 : 13–95 figs.

**746.—Le Calvez,** J. Ordre des Foraminifères (Foraminifera d'Orbigny, 1826). In : Traité de Zoologie, Paris **1** (2) 1953 : 149–265 figs.

**747.—Lee,** J. W. The effects of temperature and pH on forward swimming in *Euglena* and *Chilomonas*. Proc. Soc. Protozool. **4** 1953 : 13–14.

**748.—Lee,** J. W. The effect of pH on forward swimming in *Euglena* and *Chilomonas*. Physiol. Zoöl. **27** 1954 : 272–275 fig.

**749.—Lee,** J. W. The effect of temperature on forward swimming in *Euglena* and *Chilomonas*. Physiol. Zool. **27** 1954 : 275–280 figs.

**750.—Lee,** J. W. & **Klain,** A. A simple apparatus for the study of temperature on the rate of locomotion in Protozoa. Trans. Amer. micr. Soc. **73** 1954 : 218–219 figs.

**751.—Lee,** R. P. The occurrence of the coccidian, *Eimeria bukidnonensis* Tubangui, 1931, in Nigerian cattle. J. Parasit. **40** 1954 : 464–466 fig.

**Leeper,** C. K. *see* Burrows, R. B.

**752.—Lefrou,** G. & **Martignoles,** J. Contribution à l'étude des *Plasmodium* des chimpanzés. Inoculation de *Pl. falciparum* au chimpanzé. Bull. Soc. Path. exot. **47** 1954 : 895–903.

**753.—Lehmann,** D. J. A new species of trypanosome from the salamander *Ambystoma gracile*, with notes on a collection of amphibian blood smears. J. Parasit. **40** 1954 : 656–659 figs.

**Lehmann,** F. E. *see* Bairati, A.

**754.—Leiner,** M. & **Wohlfeil,** M. Zwei stoffwechselphysiologisch definierte Rassen von *Pelomyxa palustris* Greeff. Naturwissenschaften **40** (22) 1953 : 608.

**755.—Leiner,** M. & **Wohlfeil,** M. Das symbiontische Bakterium in *Pelomyxa palustris* Greeff. III. Z. Morph. Ökol. **42** 1954 : 529–549 figs.

**Lepech,** J. *see* Simitch, T.

**Lethwaite,** R. *see* Boyd, J. S. K.

**756.—Levine,** L. & **Herrick,** C. A. The effects of cecal coccidiosis on the ability of chickens to do muscular work. J. Parasit. **40** 1954 : Suppl. 24.

**757.—Levine,** L. & **Herrick,** C. A. The effects of the protozoan parasite *Eimeria tenella* on the ability of the chicken to do muscular work when its muscles are stimulated directly or indirectly. J. Parasit. **40** 1954 : 525–531 figs.

**758.—Levine,** M. The diverse mate-killers of *Paramecium aurelia*, variety 8 : their interrelations and genetic basis. Genetics **38** (6) 1954 : 561–578.

**759.—Levine,** M. Biochemical studies on interspecific mortality in *Paramecium*. Genetics **38** (6) 1954 : 675.

**760.—Levine,** N. D. A review of the coccidia from the avian orders Galliformes, Anseriformes and Charadriiformes, with descriptions of three new species. Amer. Midl. Nat. **49** 1953 : 696–719 figs.

**761.—Levine,** N. D. *Leucocytozoon* in the avian order Columbiformes, with a description of *L. marchouxi* Mathis and Leger 1910 from the Mourning Dove. J. Protozool. **1** 1954 : 140–143.

**762.—Levine,** N. D., **Hanson,** H. C. & **Kossack,** C. W. *Leucocytozoon marchouxi* Mathis and Leger, 1910 in the Mourning Dove. Proc. Soc. Protozool. **4** 1953 : 7.

**763.—Levine,** N. D. & **Marquardt,** W. C. A simple technic for preparing egg and serum slants free of bubbles. Proc. Soc. Protozool. **4** 1953 : 7.

**764.—Levine,** N. D. & **Marquardt,** W. C. A simple technic for obtaining egg and serum slants free of bubbles. Amer. J. trop. Med. Hyg. **3** 1954 : 195–196.

**765.—Levine,** N. D. & **Marquardt,** W. C. The effect of glycerol on survival of *Tritrichomonas foetus* at freezing temperatures. J. Protozool. **1** Suppl. 1954 : 4.

**766.—Lewin,** R. A. Effect of light on mating in *Chlamydomonas* : further observations. Proc. Soc. Protozool. **4** 1953 : 4.

**767.—Lewis,** E. A. Notes on *Trypanosoma vivax* : its transmission by tsetses and by syringe passages. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 85–89.

**768.—Lewis,** W. M. Cyclochaetids as protozoan parasites of aquarium fishes. Aquarium, Philad. **33** 1954 : 114–116 fig.

**Lie Kian Joe** *see* Bintari Sumardjo.

**Lifschitz,** J. *see* Romaña, C.

**769.—Lilly,** D. M. The nutrition of carnivorous Protozoa. Ann. N.Y. Acad. Sci. **56** (5) 1953 : 910–920 figs.

**770.—Lilly,** D. M. & **Sterbenz,** F. J. Inhibition and promotion of growth in Suctorian protozoa by 8-azaguanine and methyl purines. Proc. Soc. Protozool. **4** 1953 : 19.

**771.—Lilly,** D. M. & **Sterbenz,** F. J. Aeration as a factor in the growth of Protozoa. J. Protozool. **1** Suppl. 1954 : 10.

**Lilly,** D. M. *see* Hartig, W. J.

**Lilly,** D. M. *see* Tarantola, V.

**772.—Lincicome,** D. R. The nutrition of parasitic protozoa I. Preliminary experiments utilizing *Trypanosoma lewisi*. G. S. Thapar Commemoration Volume, Lucknow, 1953 : 173–184.

**773.—Linder,** C. & **Mercier,** P. Etude comparative de la répartition des zooplancton au lac de Bret avant et après l'aération. Schweiz. Z. Hydrol. **16** (3) 1954 : 309–317.

**774.—Lisitzina,** N. A. & **Bogush,** O. I. [Stratigraphy of Upper Paleozoic deposits of the eastern part of Altay ridge]. [Foraminifera]. Bull. Soc. Nat. Moscow, Geol. **29** (3) 1954 : 3–17 figs. [In Russian.]

**Lizano,** C. *see* Ruiz, A.

**Lockingen,** L. S. *see* Wingo, W. J.

**775.—Loeblich,** A. R. *jr.*, & **Tappan,** H. Emendation of the foraminiferal genera *Ammodiscus* Reuss 1862, and *Involutina* Terquem 1862. J. Wash. Acad. Sci. **44** (10) 1954 : 306–310 figs.

**776.—Loeblich,** A. R. *jr.* & **Tappan,** H. New names for two foraminiferal homonyms. J. Wash. Acad. Sci. **44** (12) 1954 : 384.

**777.—Loeblich,** A. R. *jr.*, & **Tappan,** H. The type species of *Bulbophragmium* Mayne 1952. Micropaleontologist **8** (4) 1954 : 32–33.

**Löfflath,** K. *see* Deckart, M.

**778.—Lopetegui,** R. Estudios sobre los detergentes *in vitro*. Accion del " Polisorbato 80 " sobre el *Trypanosoma cruzi*. Publ. Mis. Estud. Patol. region. Argentina, Nos. 83-84 1953 : 21–26 figs.

**779.—Lopez Fernandez,** J. R. & **Franca Rodriguez,** M. E. Las modificaciones cineto-morfologicas de las formas sanguicolas de *Trypanosoma cruzi* " in vitro " (adherencia de los tripanosomas, transformacion leishmanioide e inmovilizacion ) y su aplicacion para el diagnostico de la enfermedad de Chagas. An. Fac. Med. Montevideo **39** 1954 : 233–240. [English summary.]

**Low,** D. *see* Todd, R.

**780.—Lowman,** S. W. The relationship of the biotic and lithic facies in Recent Gulf Coast sedimentation [Foraminifera]. J. Sediment. Petrol. **21** 1951 : 233–237.

**Lucini,** P. *see* Ippolito, F.

**781.—Ludbrook,** N. H. Foraminifera in Sub-recent sediments at Lake Eyre, South Australia. Aust. J. Sci. **16** (3) 1954 : 108–109 fig.

**782.—Ludvik,** J. The study of the cell morphology of *Trichomonas foetus* (Riedmüller) with the electron microscope. Acta Soc. zool. Bohemoslov. **18** 1954 : 189–197 figs. [Czech with English summary.]

**783.—Lund,** E. E. The effect of sulfaquinoxaline on the course of *Eimerica stiedae* infections in the domestic rabbit. Exper. Parasit. **3** 1954 : 497–503.

**784.—Lund,** E. E. Estimating relative pollution of the environment with oocysts of *Eimeria stiedae*. J. Parasit. **40** 1954 : 663–667 figs.

**785.—Luyet,** B. J. & **Gehenio,** P. M. Effet of ethylene glycol in protecting various amoeboid organisms against freezing injury. J. Protozool. **1** Suppl. 1954 : 7.

**786.—Lynch,** J. E., **English,** A. R., **Bauck,** H. & **Deligianis,** H. Studies on the *in vitro* activity of anisomycin. [Amoebae and Trichomonads]. Antibiot. & Chemother. **4** 1954 : 844–848.

**Lysenko,** M. G. *see* Meyers, W. M.

**Lysenko,** M. G. *see* Zwisler, J. B.

**McClure,** H. E. *see* Herman, C. M.

**787.—McConnachie,** E. W. The action of amoebicidal drugs on *Entamoeba invadens* Rodhain, 1934 *in vitro*. Parasitology **44** 1954 : 132–143.

**788.—McConnachie,** E. W. The influence of environmental factors on the size of the cysts of *Entamoeba invadens* Rodhain, 1934. Parasitology **44** 1954 : 342–348 figs.

**789.—McCowen,** M. C., **Callender,** M. E. & **Rennell,** T. The use of Shaffer-Frye medium in the evaluation of experimental amebiasis. J. Protozool. **1** Suppl. 1954 : 6.

**790.—McCowen,** M. C., **Callender,** M. E., **Rennell,** T. & **Lawlis** *jr.*, F. J. Amebacidal activity of a series of synthetic diamidines. Antibiot. & Chemother. **4** 1954 : 753–762.

**McCowen,** M. C. *see* Hopper, S. H.

**791.—McDermott,** J. J. & **Stauber,** L. A. Preparation and agglutination of merozoite suspensions of the chick coccidian, *Eimeria tenella*. J. Parasit. **40** 1954 : Suppl. 23–24.

**Macdonald,** G. *see* Boyd, J. S. K.

**792.—McEntegart,** M. G. The maintenance of stock strains of trichomonads by freezing. J. Hyg. **52** 1954 : 545–550.

**793.—McGhee,** R. B. The infection of duck and goose erythrocytes by the mammalian malaria parasite, *Plasmodium berghei*. J. Protozool. **1** (3) 1954 : 145–148 fig.

**McGugan,** A. *see* Hudson, R. G. S.

**794.—Mackerras,** I. M. Animal reservoirs of infection in Australia. [Incl. protozoal infections]. Proc. Roy. Soc. Queensland **65** 1954 : 1–23.

**795.—Mackie,** T. T., **Hunter,** G. W. & **Worth,** C. B. A manual of tropical medicine. 2nd ed. Philadelphia **1954**. [Protozoal diseases : 231–237 figs.].

**McLaughlin,** J. J. A. *see* Provasoli, L.

**796.—McLean,** J. D. *jr*. New and interesting species of Foraminifera from the Vincentown formation. Part II. Forms previously described. Notul. nat. Acad. Philad. **247** 1953 : 1–16 figs.

**797.—Maegraith,** B. G. Physiological aspects of protozoan infection. Ann. Rev. Microbiol. **8** 1954 : 273–288.

**798.—Maegraith,** B. G. Some physiological and pathological processes in *Plasmodium berghei* infections in white rats. Indian J. Malariol. **8** 1954 : 281–290.

**799.—Maegraith,** B. Malaria and P.A.B. in the diet. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 275.

**800.—Maegraith,** B. G. & **Harinasuta,** C. Experimental amoebic infection of the liver in guinea-pigs. I. Infection *via* the mesenteric vein and *via* the portal vein. Ann. trop. Med. Parasit. **47** 1954 : 421–433 figs.

**801.—Maegraith,** B. G. & **Harinasuta,** C. Experimental amoebic infection of the liver in guinea-pigs. II. Abscess formation in animals with persistent intestinal lesions. Ann. trop. Med. Parasit. **48** 1954 : 434–441 figs.

**802.—Maegraith,** B. G. & **Harinasuta,** C. Experimental amoebiasis in the guinea pig. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 7.

**Maegraith,** B. G. *see* Boyd, J. S. K.

**Maegraith,** B. G. *see* Harinasuta, C.

**Magne,** J. *see* Cheylan, G.

**803.—Majib,** K. A. & **Ahmad,** M. The intestinal flagellates of *Kalotermes beesoni* Gardner. Proc. 6th Pakist. sci. Conf. **3** 1954 : 139.

**804.—Malakhova,** N. P. [Foraminifera in the Kizelov limestones of the western slopes of the Urals]. Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60 figs. [In Russian.]

**805.—Malakhova,** N. P. [On the base of the Vizeisk layer on the western slopes of the Urals according to foraminiferal evidence]. C.R. Acad. Sci. U.S.S.R. N.S. **97** (6) 1954 : 1053–1056. [In Russian.]

**806.—Malakhova,** N. P. [Turneisk strata of the eastern slope of the Northern and Central Urals, according to foraminiferal study]. C.R. Acad. Sci. U.S.S.R. N.S. **99** (4) 1954 : 605–608. [In Russian.]

**807.—Mangin,** J. P. Description d'un nouveau genre de Foraminifère : *Fallotella alarensis*. Bull. sci. Bourgogne **14** 1954 : 209–221 figs.

**Manier,** J. F. *see* Tuzet, O.

**Mannino,** S. *see* Pascarella, L.

**808.—Manso Soto,** A. E. & **Prosen,** A. F. *Trypanosoma cruzi* Chagas, 1909. El cinetoplasto. Publ. Mis. Estud. Patol. region. Argentina Nos. **83-84** 1953 : 5–7 figs.

**809.—Manso Soto,** A. E. & **Prosen,** A. F. Estudios sobre taxonomia del *Trypanosoma cruzi* Chagas, 1909. Publ. Mis. Estud. Patol. region. Argentina Nos. **83-84** 1953 : 13–20.

**810.—Manwell,** R. D. Blood parasites of birds of the High Rockies. J. Parasit. **40** 1954 : 229–231.

**811.—Manwell,** R. D. Blood protozoa of 15 species of Fringillidae. J. Protozool. **1** Suppl. 1954 : 2.

**812.—Manwell,** R. D. & **Drobeck,** H. P. Behavior and taxonomy of *Toxoplasma gondii*. Proc. Soc. Protozool. **4** 1953 : 7–8.

**813.—Manwell,** R. D. & **Khabir,** P. A. Further studies in the chemotherapy of *Plasmodium hexamerium* infections in ducks. J. Protozool. **1** (2) 1954 : 105–110 figs.

**Manwell,** R. D. *see* Warren, L.

**Manzano,** J. *see* Gutierrez Ballesteros, E.

**814.—Margalef,** R. & **Durán,** M. Microplancton de Vigo, de octubre de 1951 a septiembre de 1952. Publ. Inst. Biol. apl. Barcelona **13** 1953 : 5–78 figs.

**815.—Margalef,** R., **Herrera,** J., **Rodriguez-Roda,** J. & **Larrañeta,** M. G. Plancton recogido por los laboratorios costeros. VIII. El Fitoplancton de las costas de Castellón durante el año 1952. Publ. Inst. Biol. apl. Barcelona **17** 1954 : 87–100 figs.

**Margineanu,** A. *see* Bonciu, G.

**816.—Margolin,** P. A method for obtaining amacronucleated animals in *Paramecium aurelia*. J. Protozool. **1** 1954 : 174–177 figs.

**817.—Marks,** P. An occurrence of *Miogypsina* (*Miogypsinella*) *complanata* Schlumberger in the Lalan Asu area, Timor. Madj. Ilmu Al. unt. Indones. **110** (1–3) 1954 : 78–80 figs.

**818.—Marquardt,** W. C. A morphological comparison of *Tritrichomonas foetus*, *T. suis* and *Trichomonas gallinarum* under the phase contrast microscope. J. Protozool. **1** Suppl. 1954 : 3–4.

**Marquardt,** W. C. *see* Levine, N. D.

**Marques da Gama,** M. *see* Fraga de Azevedo, J.

**Martignoles,** J. *see* Lefrou, G.

**Martinet,** M. *see* Giroud, P.

**Martinez,** V. G. *see* Amor, J. M.

**Maryon,** M. *see* Shute, P. G.

**Marzke,** F. O. *see* Fennell, R. A.

**819.—Masseguin,** A. & **Tailleffer-Grimaldi,** J. Déclin et danger résiduel de la trypanosomiase en Afrique Occidentale Française. Ann. Soc. Belge Méd. trop. **34** 1954 : 671–694.

**820.—Masseguin,** A. & **Tailleffer-Grimaldi,** J. Statistical review of trypanosomiasis in French West Africa from 1932 to 1954 (Historical, statistical, general). 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 1–28.

**Mathis,** M. *see* Durand, P.

**821.—Matilla,** V., **Aparicio Garrido,** J., **Prieto Lorenzo,** A. & **Fernandez Nafria,** A. Contribucion al estudio de la inmunidad en el paludismo experimental por *Plasmodium berghei*. Med. colon., Madrid **23** 1954 : 8–11.

**822.—Matthes,** D. Sauginfusorien auf Käfern und Wanzen. I. Die auf Hydrophiliden, Hydraeniden und Dryopiden lebenden *Discophrya*-Arten. Mikrokosmos **42** 1953 : 222–226 figs.

**823.—Matthes,** D. Sauginfusorien auf Käfern und Wanzen. II. Die an Dytisciden, Halipliden und Wasserwanzen gebundenen *Discophrya*-Arten. Mikrokosmos **43** 1953 : 35–40 figs.

**824.—Matthes,** D. Suktorienstudien I. Beitrag zur Kenntnis der Gattung *Discophrya* Lachmann. Arch. Protistenk. **99** 1954 : 187–226 figs.

**825.—Matthes,** D. Suktorienstudien VI. Die Gattung *Heliophrya* Saedeleer & Tellier 1929. Arch. Protistenk. **100** 1954 : 143–152 figs.

**826.—Matthes,** D. Suktorienstudien V. Die zwischen obligat gebundenen Discophryen und ihren Trägern bestehenden Beziehungen. Z. Morph. Ökol. **42** 1953 : 307–332 figs.

**827.—Matthes,** D. Über obligatorisch symphoriontе *Discophrya*-Arten. Zool. Anz. **152** 1954 : 106–121 figs.

**828.—Matthes,** D. *Discophyra lichtensteinii* (Claparède & Lachmann 1858) Collin 1912, ein an Halipliden und Dytisciden gebundenes Suktor. Zool. Anz. **152** 1954 : 252–262 figs.

**829.—Matthes,** D. *Discophrya buckei* (Kent), eine formenreiche Art der *linguifera* Gruppe. Zool. Anz. **153** 1954 : 242–250 figs.

**830.—Mauzé,** J. & **Montigny,** C. Theilériose des bovidés en Guadeloupe. Bull. Soc. Path. exot. **47** 1954 : 504–505.

**May, G.** *see* Herzberg, K.

**831.—May,** J. M. Map of the world distribution of leishmaniasis. Geogr. Rev. **44** 1954 : 583–584.

**832.—Mayer,** G. Trichomonadenkultur und Deckseuchenbekämpfung. Tierärztl. Umschau **8** 1953 : 440–443.

**833.—Mayer,** H. F. & **Alcaraz,** I. Investigaciones sobre esquizotripanosis en perros y gatos de la zona suburbana de Resistencia. An. Inst. Med. reg., Tucuman **4** 1954 : 9–17 figs. [French summary.]

**834.—Mayer,** M. & **Rocha Lima,** H. da. El comportamiento del *Schizotrypanum cruzi* en animales homeotermicos y artropodos. Arch. Venezol. Pat. trop. **2** 1954 : 9–49 figs.

**835.—Maync,** W. The genus *Navarella* Ciry and Rat, 1951, in the Maestrichtian of Switzerland. Contr. Cushman Fdn. **5** (3) 1954 : 138–144 figs.

**836.—Maync,** W. The type species of *Bulbophragmium* Maync 1952. Micropaleontologist **8** (3) 1954 : 51–52.

**837.—Maync,** W. A friendly admonition. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 28–29.

**838.—Mayo,** M. & **Pittaluga,** G. Estudio de la acción de los estrógenos sobre las actividades vitales y la reproducción de *Paramecium caudatum*. Mem. Soc. cubana Hist. nat. **22** (4) 1954 : 393–418 figs.

**Mazia,** D. *see* Prescott, D. M.

**839.—Meglitsch,** P. A. Observations on *Euplotes woodruffi* Gaw. J. Protozool. **1** Suppl. 1954 : 8.

**840.—Meier,** K. E. & **Kaunat,** H. Einfluss von Sexualhormonen aus freilebende Protozoen (Ciliaten). Naturwissenschaften **41** 1954 : 261.

**841.—Meier,** M. Parasitische Ciliaten bei Oligochäten. Arch. Protistenk. **100** 1954 : 212–245 figs.

**Mellanby,** H. *see* Hawking, F.

**Mello,** A. F. B. de *see* Mello, I. F. de.

**842.—Mello,** I. F. de. On a new species of *Oxymonas* from the intestinal contents of the Brazilian termite *Neotermes hirtellus* (Silvestri). An. Inst. Med. trop., Lisbon **10** (2) 1953 [1954] : 251–260 figs.

**843.—Mello,** I. F. de. Protozoaires parasites du *Cryptotermes brevis* Walker, provenant de Campinas (Bresil). An. Inst. Med. trop., Lisbon **11** 1954 : 339–360 figs. [English summary.]

**844.—Mello,** I. F. de. Sôbre a estrutura da *Stephanonympha havilandi* (Grassi, 1917) do intestino do *Cryptotermes havilandi* (Sjöstedt, 1900), termita africano encontrado no Brasil (Protozoa-Calonymphidae; Isoptera-Kalotermitidae). Arq. Inst. biol., S. Paulo **21** 1954 : 127–133 figs. [English summary.]

**845.—Mello,** I. F. de. Contribution à l'étude des microparasites des termites brésiliens. Flagellés du contenu intestinal *d'Heterotermes tenuis* (Hagen, 1858). Mem. Inst. O. Cruz. **52** 1954 : 17–51 figs. [English summary.]

**846.—Mello,** I. F. de. Sobre dous Polymastigina parasitas do termita Africano *Cryptotermes havilandi* Sjöstedt instalado em Terra Brasileira. Pap. Dep. Zool. Sec. Agric., S. Paulo **11** 1954 : 49–56 figs. [English summary.]

**847.—Mello,** I. F. de. Protozoarios parasitas do diplopodo Brasileiro *Rhinocricus padbergi* Verhoeff 1938 das chacaras de São Paulo. Pap. Rep Zool. Sec. Agric., S. Paulo **11** 1954 : 57–61 figs. [English summary.]

**848.—Mello,** I. F. de. Sobre um amebiano do genero *Endolimax*, parasita do termita Brasileiro *Cornitermes cumulans* (Kollar), colectado em São Paulo. Pap. Dep. Zool. Sec. Agric., S. Paulo **11** 1054 : 345–351 figs. [English summary.]

**849.—Mello,** I. F. de. *Pseudotrichonympha sertaneja* n. sp. (Protozoa, Mastigophora), from the intestine of a new termite (*Rugitermes* sp.) collected in Brazil. Parasitology **44** 1954 : 24–29 figs.

**850.—Mello,** I. F. de. On a new species of *Stephanonympha* (Protozoa, Mastigophora) from the intestine of the Brazilian termite, *Neotermes hirtellus*. Parasitology **44** 1954 : 30–33 figs.

**851.—Mello,** I. F. de. Contribution à l'étude des microparasites de termites Brésiliens. II. Un nouveau Calonymphide, *Snyderella ypiranga* sp. n., de *Rugitermes rugosus* (Hagen, 1858). Rev. Brasil. Biol. **14** 1954 : 71–78 figs.

**852.—Mello,** I. F. de. Contribution à l'étude des microparasites des termites Brésiliens. III. Encore les flagellés de *Rugitermes rugosus* (Hagen, 1858), recolté à Mont' Alegre do Sul (État de São Paulo). Rev. Brasil. Biol. **14** 1954 : 167–176 figs.

**853.—Mello,** I. F. de & **Mello,** A. F. B. de. On some curious anomalies in the structure of the *Nyctotherus macropharyngeus* Bezzenberger. Bol. Ass. Filos. nat., Porto **2** (2) 1943 : 5–8 fig.

**Mello,** M. J. de *see* Giovannoni, M.

**Melton,** M. L. *see* Jacobs, L.

**854.—Menolasino,** N. J. & **Hartman,** E. Immunology and serology of some parasitic protozoan flagellates. I. *Trichomonas vaginalis* and *Trichomonas foetus*. J. Immunol. **72** 1954 : 172–177.

**855.—Menolasino,** N. J. & **Hartman,** E. Immunology and serology of some parasitic protozoan flagellates : II. The hemoflagellate Protozoa, *Leishmania donovani* and *Trypanosoma cruzi*. J. Protozool. **1** (2) 1954 : 111–113.

**856.—Mercado,** T. I. & **Brand,** T. von. Glycogen studies on white rats infected with *Plasmodium berghei*. Exper. Parasit. **3** 1954 : 259–266.

**Mercado,** T. I. *see* Brand. T. von.

**Mercier,** P. *see* Linder, C.

**857.—Merle,** R. Les premiers êtres vivants : Protistes : protophytes et protozoaires. Nature, Paris **3226** 1954 : 74–77 figs.

**858.—Messikommer,** E. Zur Kenntnis der niederen Sumpf-und Wasserfauna der Gegend des Pfäffikersees (Kt. Zürich). Rev. suisse Zool. **61** 1954 : 635–656.

**859.—Metz,** C. B. Mating substances and the physiology of fertilization in ciliates. Sex in Microorganisms, Wash. D.C. 1954 : 284–334 figs.

**860.—Metz,** C. B. & **Westfall,** J. A. The fibrillar systems of ciliates as revealed by the electron microscope. II. *Tetrahymena*. Biol. Bull., Wood's Hole **107** 1954 : 106–122 figs.

**861.—Meyer,** H. & **Porter,** K. R. A study of *Trypanosoma cruzi* with the electron microscope. Parasitology **44** 1954 : 16–23 figs.

**862.—Meyers,** W. M. & **Lysenko,** M. G. Plasma protein variations in *Trypanosoma lewisi* infected rats and the effect of salicylate treatment on these variations. J. Parasit. **40** 1954 : Suppl. 20.

**Michaelson,** J. B. *see* Blumenthal, H.

**Michaelson,** J. B. *see* DeLamater, J. N.

**Michaelson,** J. B. *see* Hallman, F. A.

**863.—Mielcarek,** J. E. The occurrence of *Plasmodium relictum* in the wood duck (*Aix sponsa*). J. Parasit. **40** 1954 : 232.

**864.—Migliorini,** C. I. Orme di tetrapodi nell' Alberese di Pontassieve in provincia di Firenze. [Foraminifera]. Mem. Soc. tosc. Sci. nat. **54** 1947 : 1–9 fig.

**865.—Miller,** M. J. Milk diet and human malaria. Amer. J. trop. Med. Hyg. **3** 1954 : 825–830 figs.

**866.—Mironov,** G. N. [The food of predatory planktonic organisms : the food of *Noctiluca*]. Trav. Sta. biol. Sebastopol **8** 1954 : 320–340. [In Russian].

**Mohan,** K. *see* Rao, S. R. N.

**867.—Monné,** L. & **Hönig,** G. On the properties of the shells of the coccidian oocysts. Ark. Zool. **7** 1954 : 251–256 figs.

**868.—Montézin,** G. Remarquable fixité de la souche normale de *T. brucei* de l'Institut Pasteur vis-à-vis de divers médicaments trypanocides (1923–1953). Bull. Soc. Path. exot. **47** 1954 : 163–170.

**Montézin,** G. *see* Schneider, J.

**Montigny,** C. *see* Mauzé, J.

**869.—Moore,** E. N., **Brown,** J. A. & **Carter,** R. D. A new coccidium of turkeys (*Eimeria subrotunda* n. sp.). Proc. Soc. Protozool. **4** 1953 : 12–13.

**870.—Moore,** E. N., **Brown,** J. A. **& Carter,** R. D. A new coccidium of turkeys, *Eimeria subrotunda* n. sp. (Protozoa: Eimeriidae). Poultry Sci. **33** 1954: 925–929 figs.

**871.—Moore,** R. C. Status of invertebrate paleontology, 1953. X. Evolution of Late Paleozoic invertebrates in response to major oscillations of shallow seas. [Foraminifera]. Bull. Mus. comp. Zool. Harv. **112** (3) 1954: 259–286 figs.

**872.—Moore,** R. C. Kingdom of organisms named Protista. J. Paleont. **28** (5) 1954: 588–598.

**873.—Morel,** P. Toxoplasmose du lapin. Rec. Méd. vét. École Alfort **130** 1954: 371–376 figs.

**Morgan,** W. T. J. *see* Watkins, W. M.

**Morishima,** M. *see* Senchi, M.

**874.—Morishita,** A. and others. [Several geological problems of the west edge of Niigata alluvial basin]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950: 303. [Abstract: in Japanese.]

**875.—Morisita,** T. Notes on the haemoflagellate (Trypanosomidae; *Crithidia*) from the bug (*Erythesina fullo*). Jap. J. med. Sci. Biol. **7** 1954: 135–137 figs.

**876.—Mornet,** P. Les trypanosomes pathogènes de l'A.O.F. Considérations sur leur répartition, leur fréquence, le taux d'infestation des animaux domestiques. Bull. Soc. Path. exot. **47** 1954: 709–720 maps.

**877.—Mornet,** P. The pathogenic trypanosomes of French West Africa: their distribution and frequency and the incidence of domestic animal infestation. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954: 37–51 maps.

**878.—Morozov,** N. S. [On the distribution of the upper zone of the Maastrichtian along the Volga river and in the basin of the central Don river]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **97** (3) 1954: 511–513. [In Russian.]

**Mortelmans,** J. *see* Deom, J.

**Morton,** D. M. *see* Hudson, R. G. S.

**Mosevič,** M. V. *see* Petruševskij, G. K.

**Mossion,** X. *see* Lamy, L.

**879.—Mote,** R. F. A study of soil protozoa on an Iowa virgin prairie. Proc. Iowa Acad. Sci. **61** 1954: 570–592 figs.

**880.—Muirhead-Thomson,** R. C. Low gametocyte thresholds of infection of *Anopheles* with *Plasmodium falciparum*, a significant factor in malaria epidemiology. Brit. med. J. I. **1954**: 68–70.

**881.—Muirhead-Thomson,** R. C. Factors determining the true reservoir of infection of *Plasmodium falciparum* and *Wuchereria bancrofti* in a West African Village. Trans. R. Soc. trop. Med. Hyg. **48** 1954: 208–225.

**882.—Mukherjea,** A. K. The role of culture medium and its constituents on the growth and viability of *Entamoeba histolytica*. Proc. nat. Inst. Sci. India **20** 1954: 437–451.

**883.—Mukherjea,** A. V. The rôle of bacteria on the growth and viability of *Entamoeba histolytica*. Proc. nat. Inst. Sci. India **20** 1954: 660–672.

**Mukherjee,** A. M. *see* Gupta, S. K.

**884.—Mundt,** W. Beitrag zum Studium des Entwicklungszyklus von *Trichomonas foetus* unter besonderer Berücksichtigung der Rundformen. Tierärztl. Umschau **8** 1953: 15–17 figs.

**885.—Mundt,** W. Ein Beitrag zum Studium der Lebens-und Vermehrungsfähigkeit von *Trichomonas foetus* ausserhalb des Tierkörpers. Tierärztl. Umschau **8** 1953: 73–77 figs.

**886.—Mundt,** W. Der Einfluss der Wasserstoffionen-Konzentration auf den Nachweis der *Trichomonas foetus* im Genitale des Weiblichen Rindes. Tierärztl. Umschau **8** 1953: 437–440 figs.

**Mundt,** W. *see* Weikl, A.

**Muranda,** M. *see* Regonesi, C.

**Murard,** J. *see* Galliard, H.

**887.—Murata,** S. [On fossil foraminifera in mid-Cenozoic strata in the south of the Hinga Plain, Miyazeki Prefecture]. J. geol. Soc. Japan **56** (656) 1950: 275. [Abstract in Japanese.]

**888.—Musacchia,** X. J. & **Passaglia** M. Effects of glycerol on *Pelomyxa carolinensis* Wilson and *Paramecium aurelia* Ehrenberg. J. Protozool. **1** Suppl. 1954 : 14.

**889.—Myatt,** A. V. & **Coatney,** G. R. Present concepts and treatment of *Plasmodium vivax* malaria. Arch. inter. Med. **93** 1954 : 191–196.

**890.—Myatt,** A. V., **Coatney,** G. R., **Hernandez,** T. & **Gunn,** E. Effect of blood group on the prepatent period of inoculated *vivax* malaria. Amer. J. trop. Med. Hyg. **3** 1954 : 981–984.

**891.—Nadel,** E. M., **Greenberg,** J. & **Coatney,** G. R. The effect of malaria (*Plasmodium berghei*) on leukemia L 1210 in mice. J. inf. Dis. **95** 1954 : 109–113 fig.

**Nadel,** E. M. *see* Greenberg, J.

**892.—Nagle,** A. F. Excystment of *Nyctotherus cordiformis* (Ehr.) Stein (Protozoa, Ciliata). Proc. Pa. Acad. Sci. **27** 1953 : 215–220 figs.

**893.—Nair,** C. P. Animals in malaria research. Bull. Nat. Soc. India for Malaria **2** 1954 : 200–207.

**Nair,** C. P. *see* Jaswant Singh.

**Nandi,** S. *see* Dutta, B. N.

**894.—Nanney,** D. L. Mating-type determination in *Paramecium aurelia*, a model of nucleo-cytoplasmic interaction. Proc. nat. Acad. Sci., Wash. **39** (2) 1953 : 113–119.

**895.—Nanney,** D. L. X-ray studies on Paramecins and Kappas of variety 4 of *Paramecium aurelia*. Physiol. Zöol. **27** 1954 : 79–89 figs.

**896.—Nanney,** D. L. Mating type determination in *Paramecium aurelia*. A study in cellular heredity. Sex in Microorganisms, Wash. D.C. 1954 : 266–283.

**897.—Nanney,** D. L. & **Caughey,** P. A. Mating type determination in *Tetrahymena pyriformis*. Proc. nat. Acad. Sci., Wash. **39** (10) 1953 : 1057–1062.

**898.—Nardone,** R. M. & **Blaszcynski,** H. J. Growth effects induced in *Tetrahymena pyriformis* by streptomycin and its components. J. exp. Zool. **125** 1954 : 119–125 fig.

**Naschke,** M. D. *see* Seaman, G. R.

**Nascimento,** R. de *see* Oliviera, L. H. P. de.

**899.—Nathan,** H. Festrede über die Persönlichkeit Carl Wilhelm von Gümbels. Geol. Bavarica **6** 1951 : 16–25.

**900.—Nathan,** H. A. The nutrition of *Herpetomonas culicis*. J. Protozool. **1** Suppl. 1954 : 5.

**901.—Nathan,** H. A. & **Carsted,** K. W. A possible hemin-replacing factor for *Crithidia oncopelti*. J. Protozool. **1** Suppl. 1954 : 5.

**902.—Nathan,** H. A. & **Cowperthwaite,** J. Role of folic acid in the nutrition of *Crithidia fasciculata*. Proc. Soc. Protozool. **4** 1953 : 9.

**903.—Nathan,** H. A. & **Cowperthwaite,** J. Use of the Trypanosomid flagellate, *Crithidia fasciculata*, for evaluating antimalarials. Proc. Soc. exp. Biol. Med. **85** 1954 : 117–119 fig.

**904.—Nathan,** H. A., **Cowperthwaite,** J. & **Hutner,** S. H. Growth of insect Trypanosomidae in defined media. Proc. Soc. Protozool. **4** 1953 : 8–9.

**Navarrete,** F. *see* Gutierrez Ballesteros, E.

**Navarro,** L. *see* Pérez-Reyes, R.

**Neal,** R. *see* Waletzky, E.

**905.—Neal,** R. A. Amoebae found in the intestine of lizards from the Sudan. Parasitology **44** 1954 : 422–427 figs.

**906.—Neal,** R. A. *Entamoeba invadens*, a tissue-invading parasite of reptiles. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 12.

**907.—Neal,** R. A. The influence of encystation upon the virulence of *Entamoeba histolytica* to rats. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 533–536.

**Neal,** R. A. *see* Hill, W. C. O.

**Negadaev-Nikonov,** K. N. *see* Vasilenko, V. P.

**908.—Neghme,** A. Estado actual de nuestros conocimientos sobre amebiasis en Chile. Semana Med. 60th Anniv. **1954** : 63–68.

**909.—Neghme,** A. & **Silva,** R. Data on the epidemiology and the prophylaxis of amebiasis in Chile. Riv. Parassit. **15** 1954 : 557–576.

**910.—Neghme, A., Silva, R. & Sotamayor, R.** Intestinal parasitic infections in school children of the Province of Santiago. [Including protozoa]. Bol. Chil. Parasit. **9** 1954 : 70–73. [Spanish with English summary.]

**Negroni, G.** *see* Carrescia, P. M.

**911.—Nemetschek, T., Hofmann, U. & Wohlfarth-Bottermann, K. E.** Die Querstreifung der *Paramecium*-Trichocysten. Z. Naturf. **8B** (7) 1953 : 383–384.

**912.—Nemkov, G. I.** [The dimorphism and normal features in the species of the larger Foraminifera belonging to the family Nummulitidae]. Bull. Soc. Nat. Moscow, Geol. **29** (3) 1954 : 49–57 fig. [In Russian.]

**913.—Nemkov, G. I.** [Nummulites of the Soviet Union and their stratigraphical distribution]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **97** (5) 1954 : 883–885. [In Russian.]

**Neogy, K. N.** *see* Gupta, S. K.

**914.—Neujean, G.** Déclin et danger résiduel de la maladie du sommeil à *T. gambiense*. Ann. Soc. Belge Méd. trop. **34** 1954 : 653–661.

**Neumann, E.** *see* Jacobs, L.

**Nevenitch, V.** *see* Simitch, T.

**915.—Newell, G. E.** The marine fauna of Whitstable. [Protozoa]. Ann. Mag. nat. Hist. (12) **7** 1954 : 322–350.

**916.—Newell, N. D.** Reefs and sedimentary processes of Raroia. [Foraminifera]. Atoll res. Bull. No. 36 1954 : 1–35 figs.

**917.—Nicholas, J. S. Lorande Loss Woodruff.** J. Protozool. **1** (1) 1954 : 4–6 fig.

**Nigrelli, R. F.** *see* Jakowska, S.

**Nigrelli, R. F.** *see* Padnos, M.

**Nisida, K.** *see* Hukui, T.

**918.—Noble, G. A.** *Entamoeba dilimani* sp. nov. from Philippine goats. Philipp. J. Sci. **83** 1954 : 113–117 figs.

**919.—Nobrega, P. & Giovannoni, M.** On the action of terramycin on experimental toxoplasmosis. Arq. Inst. biol., S. Paulo **21** 1954 : 5–12. [Portuguese with English summary.]

**Nobrega, P.** *see* Giovannoni, M.

**920.—Noda, M.** [Carboniferous-Permian boundary in North China and South Manchuria]. [Foraminifera]. J. geol. Soc. Japan **56** (652) 1950 : 23–34. [In Japanese.]

**921.—Nordi, E.** Ulteriori osservazioni sulla piroplasmosi suina. Vet. Ital. **5** 1954 : 803–811. [English summary.]

**922.—Nordli, O.** Dinoflagellates from Lofoten. Nytt. Mag. Naturv. **88** 1951 : 49–55 figs.

**923.—Norman, L. & Brooke, M. M.** The effectiveness of the PVA-fixative technique in revealing intestinal amebae in diagnostic cultures. J. Parasit. **40** 1954 : Suppl. 23.

**924.—Noury, M.** Infection mixte trypano-spirochétienne spontanée du lapin. Bull. Soc. Path. exot. **47** 1954 : 788–790 figs.

**925.—Nouvel, H.** Un Ellobiopsidae nouveau (*Amallocystis boschmai* n. sp.) parasite d'un Mysidacé en Mediterranée (Note préliminaire). Vie et Milieu **4** (1) 1954 : 57–58 fig.

**926.—Nübori, T., Tomita, S. & Sugimura, S.** [The edge of the oil field Tertiary in the south-east of Higashiyama in Nügata Prefecture]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 303. [Abstract—in Japanese.]

**Nussenzweig, G.** *see* Silva, L. H. P. da.

**927.—Nyholm, K. G.** Studies of Recent Allogromiidae (3) : *Tinogullmia hyalina* n. gen., n. sp., from the Gullmar Fjord, Sweden. Contr. Cushman Fdn. **5** (1) 1954 : 36 fig.

**928.—Oberhauser, R.** Geologische Untersuchungen im Flysch und Helvetikum der Hohen Kugel (Vorarlsberg) mit mikropaläontologischen Beiträgen von Franz Bettenstaedt und Carl A. Wicher. [Foraminifera]. Verh. geol. Reichs. Anst. (St. Aust.) Wien **3** 1953 : 176–183.

**929.—Obradović, S.** [Die mikrofauna der oberen Kreide in der Umgebung von Beograd (Kijevo, Resnik, Ripanj und Klenje)]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953 : 67–85 figs. [German summary : 85–7.]

**Ochs,** J. Q. *see* Stauber, L. A.

**930.—Odlaug,** T. O. Parasites of some Ohio amphibia. [Incl. protozoa.] Ohio J. Sci. **54** 1954 : 126–128.

**931.—Oinomikado,** T. News—Japan. [Foraminifera]. Micropaleontologist **8** (3) 1954 : 15–19.

**Oka,** S. *see* Hara, K.

**932.—Okajima,** A. Studies on the metachronal wave in *Opalina*. II. The regulating mechanism of ciliary metachronism and of ciliary reversal. Annot. zool. jap. **27** 1954 : 40–45 figs.

**933.—Okajima,** A. Studies on the metachronal wave in *Opalina*. III. Time-change of effectiveness of chemical and electrical stimuli during adaptation in various media. Annot. zool. jap. **27** 1954 : 46–51 figs.

**934.—Okishima,** K. & **Suzuki,** M. [A new effective method in evaginating the polar filament of *Nosema bombycis* Nägeli]. Zool. Mag. Tokyo **51** 1939 : 463–473 figs. [Japanese with English summary.]

**935.—Okitsu,** T. On the seasonal change of *Ceratium* in Aomori Bay. Bull. Mar. biol. Sta. Asamurshi **7** (1) 1954 : 17–20 fig.

**936.—Oliveira,** L. de & **Krau,** L. Levantamento biogeográfico da Baía de Guanabara. II. Crescimento do manguezal na Ilha do Pinheiro. [Protozoa]. Mem. Inst. Osw. Cruz **51** 1954 : 503–543 figs.

**937.—Oliveira,** L. H. P. de, **Krau,** L. & **Nascimento,** R. de. Observações hidrobiológiques na cisterna de Ilha de Pinheiro. [Protozoa] Mem. Inst. Osw. Cruz **51** 1954 : 377–416 figs.

**Orfila,** J. *see* Fabiani, G.

**Orlova,** A. F. *see* Poljanskij, J. I.

**Ormières,** R. *see* Tuzet, O.

**938.—Osberger,** R. Der Flysch-Kalkalpenrand zwischen der Salzach und dem Fuschlsee. [Foraminifera]. S.B. öst. Akad. Wiss. Abt. I **161** (9–10) 1952 : 785–801.

**939.—Osterud,** K. L. Influence of variations in the physical and chemical environment on growth of four species of green flagellates in pure culture. Proc. Soc. Protozool. **4** 1953 : 14.

**940.—Otsuka,** Y. [Comparison of the Shizukawa and Kakegawa beds]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 297. [Abstract—in Japanese.]

**Oxford,** A. E. *see* Eadie, J. M.

**941.—Oye,** P. van. Faune rhizopodique de l'étang de Beernem. Biol. Jaarb. **20** 1953 : 154–205 figs.

**942.—Oye,** P. van. Rhizopodes Thecamoebiens de l'Afrique et la biogéographie des protistes. Zooleo **28** 1954 : 467–470 figs.

**943.—Ozaki,** H. Stratigraphy of the basal conglomerate of the Pliocene Na-arai formation in the Tyôsi City, Kantô Region. [Foraminifera]. Bull. nat. Sci. Mus. Tokyo N.S. **1** (2) 1954 : 46–61 figs.

**944.—P.,** A. Le paludisme des Lémuriens. Nat. Malgache **5** (2) 1953 : 241.

**945.—Pace,** D. M., & **Hoagland,** R. A. The effects of ethanol on conjugation and division in *Paramecium caudatum*. J. Protozool. **1** 1954 : 83–85.

**946.—Paddock,** R. B. The appearance of amoebae tracks in cultures of *Dictyostelium discoideum*. Science **118** 1953 : 597–598 fig.

**947.—Padnos,** M., **Jakowska,** S. & **Nigrelli,** R. F. Studies on *Colpoda*. II. The morphology and cytology of aged corrugated resting cysts of *Colpoda maupasi* (Bensonhurst strain) kept in cultures up to four years. Proc. Soc. Protozool. **4** 1953 : 18.

**948.—Padnos,** M., **Jakowska,** S. & **Nigrelli,** R. F. Studies on *Colpoda*. III. Effects of low temperature on reproductive cysts of *Colpoda maupasi* (Bensonhurst strain). Proc. Soc. Protozool. **4** 1953 : 18.

**949.—Padnos,** M., **Jakowska,** S., **Nigrelli,** R. F. Morphology and life history of *Colpoda maupasi*, Bensonhurst strain. J. Protozool. **1** 1954 : 131–139 figs.

**950.—Padnos,** M., **Jakowska,** S. & **Nigrelli,** R. F. Studies on *Colpoda* : IV. Reorganization of the silverline system in *Colpoda maupasi* (Bensonhurst strain). J. Protozool. **1** Suppl. 1954 : 13.

**Palade,** G. E. *see* Sager, R.

**Palafox,** A. L. *see* Rosenberg, M. M.

**Palm,** G. *see* Westphal, A.

**951.—Papp,** A. & **Küpper,** K. Über die Entwicklung der Heterosteginen im Torton des Wiener Beckens. Anz. öst. Akad. Wiss. **89** 1953 : 110–118 figs.

**952.—Papp,** A. & **Küpper,** K. Die Foraminiferenf aunavon Guttaring und Klein St. Paul (Kärnten). I. Über *Globotruncana* südlich Pemberger bei Klein St. Paul. S. B. öst. Akad. Wiss. Abt. I **162** (1–2) 1953 : 31–48 figs.

**953.—Papp, A.** & **Küpper,** K. Die Foraminiferenfauna von Guttaring und Klein St. Paul (Kärnten). II. Orbitoiden aus Sandsteinen von Pemberger bei Klein St. Paul. S.B. öst. Akad. Wiss. Abt. I **162** (1–2) 1953 : 65–82 figs.

**954.—Papp, A.** & **Küpper,** K. Über Stolonen und Auxiliakammern bei *Orbitoides* und *Lepidorbitoides*. S.B. öst. Akad. Wiss. Abt. I. **162** (4) 1953 : 273–277 fig.

**955.—Papp,** A. & **Küpper,** K. Die Foraminiferenfauna von Guttaring und Klein St. Paul (Kärnten). III. Foraminiferen aus dem Campan von Silberegg. S.B. öst. Akad. Wiss. Abt. I. **162** (5) 1953 : 345–357 figs.

**956.—Papp,** A. & **Küpper,** K. The genus *Hetcrostegina* in the Upper Tertiary of Europe. Contr. Cushman Fdn. **5** (3) 1954 : 108–127 figs.

**957.—Pappas,** G. D. Structural and cytochemical studies of the cytoplasm in the family Amoebidae. Ohio J. Sci. **54** (3) 1954 : 195–222 figs.

**958.—Papulov,** G. N. [Contribution to the problem of the Lower Mesozoic in the middle Transural]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **97** (1) 1954 : 145–146. [In Russian.]

**959.—Paramonov,** A. A. [Amoeboid organism attacking the invading larvae of a gall-nematode *Oigolaimella winchesi*]. Trud. Gelmintol. Lab. **7** 1954 : 50–54 figs. [In Russian.]

**960.—Párducz,** B. Die Fixation als Reizwirkung in der Fätigkeit der Zellorganellen. Acta Biol., Bp. **3** (1) 1952 : 1–17 figs.

**961.—Párducz,** B. Zur Mechanik der Zilienbewegung. Acta Biol., Bp. **4** (1–2) 1953 : 177–220 figs.

**962.—Párducz,** B. Reizphysiologische Untersuchungen an Ziliaten. II. Neuere Beiträge zum Bewegungs- und Koordinations-Mechanismus der Ziliatur. Acta. biol. hung. V (1–2) 1954 : 169–212 figs.

**963.—Paréjas,** E. & **Carozzi,** A. Rhythmes de sédimentation dans le Crétacé supérieur de La Rivière, près de Chésery (Ain, France). [Foraminifera]. Arch. Sci. Genève **4** (2) 1951 : 129–134.

**964.—Paréjas,** E. & **Carozzi,** A. Observations micrographiques sur le Crétacé supérieur du Roc-de-Chère (lac d'Annecy). [Foraminifera]. Arch. Sci., Genève **4** (6) 1951 : 422–426.

**965.—Parker,** F. L. Distribution of the foraminifera in the Northeastern Gulf of Mexico. Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

**Parness,** A. *see* Avnimelech, M.

**Parreira,** F. *see* Trincão, C.

**Parrish,** G. *see* Kessel, J. F.

**Parrish,** M. *see* Kessel, J. F.

**Parrot,** L. *see* Sergent, E.

**Partsch,** K. *see* Hirschmann, H.

**966.—Pascarella,** L. & **Mannino,** S. Considerazioni ed osservazioni cliniche sulla possibilita di localizzazioni vaginali del *Trichomonas intestinalis* (*hominis*). Arch. Ital. Sci. med. trop. Parassit. **35** 1954 : 256–268 figs. [English summary.]

**Passaglia,** M. *see* Musacchia, X. J.

**967.—Pattillo,** W. H. & **Becker,** E. R. Cytochemistry of the macrogametocyte and unsporulated oocyst of *Eimeria brunetti* and *E. acervulina*. J. Parasit. **40** 1954 : Suppl. 25.

**968.—Paulson,** B. Some rhizopod associations in a Swedish mire. Oikos **4** (2) 1954 : 151–165 figs.

**969.—Pavlovski,** E. V. & **Frolova,** N. V. [Organic remains in metamorphic complexes]. [Radiolaria]. Bull. Acad. Sci. U.S.S.R. Geol. **6** 1954 : 15–29 figs. [In Russian.]

**Pawlowski,** Z. *see* Kasparzak, W.

**Pearson,** J. C. *see* Fallis, A. M.

**970.—Peckham,** R. S. & **Dineen,** C. F. Summer plankton of Lake Amatillan, Guatemala. Amer. Midl. Nat. **50** (2) 1953 : 377–381.

**Pedal,** H. W. *see* Wagner, W. H.

**971.—Peel,** E. & **Chardome,** M. Sur les infections à trypanosomes, transmises par *Glossina brevipalpis* dans la région du Mosso-sud (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 259–268 figs.

**972.—Peel,** E. & **Chardome,** M. *Trypanosoma suis* Ochmann, 1905, trypanosome monomorphe pathogène de mammifères, évoluant dans les glandes salivaires de *Glossina brevipalpis* Newst., Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 277–295 figs.

**973.—Peel,** E. & **Chardome,** M. Etude expérimentale d'une souche considérée comme *T. congolense* Broden 1904 et transmise par *Glossina brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 297–302 figs.

**974.—Peel,** E. & **Chardome,** M. Etude expérimentale d'une souche appelée *T. congolense* var. *urundiense* transmise par *Glossina brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 303–309 figs.

**975.—Peel,** E. & **Chardome,** M. Etude expérimentale d'une souche appelée *T. congolense* var. *mossoense* transmise par *G. brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 321–343 figs.

**976.—Peel,** E. & **Chardome,** M. Etude expérimentale de souches de *T. simiae* Bruce 1912, transmises par *Glossina brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 345–359 figs.

**977.—Peel.** E. & **Chardome,** M. Infections multiples à trypanosomes transmises aux mammifères par *Glossina brevipalpis* du Mosso (Urundi). Ann. Soc. Belge Méd. trop. **34** 1954 : 361–366 figs.

**978.—Peel,** E. & **Chardome,** M. Recherches sur l'éventualité d'une trypanosomiase héréditaire chez les animaux. Ann. Soc. Belge Méd. trop. **34** 1954 : 367–369.

**979.—Peel,** E. & **Chardome,** M. *Trypanosoma suis* Ochmann, 1905, a porcine trypanosome from the Belgian Congo, with metacyclic development in the salivary glands of *Glossina*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 288.

**Peel,** E. *see* Chardome, M.

**980.—Pellegrino,** J. La malattia di Chagas. Gaz. intern. Med. Chir. **59** 1954 : 519–588 figs.

**981.—Pellegrino,** J. Chagas' disease in Minas Geraes. A critical study of the papers published up to 1951. Mem. Inst. O. Cruz. **51** 1953 : 611–668. [Portuguese with English summary.]

**982.—Pellegrino,** J. & **Rezende,** C. L. de. A doença de Chagas na infancia. Mem. Inst. O. Cruz **51** 1954 : 545–610 figs.

**Perez Moreira,** L. *see* Talice, R. V.

**983.—Pérez-Reyes,** R. La posicion sistematica de *Trypanosoma cruzi* y sus relaciones con *T. lewisi*. Ciencia, Mexico **14** 1954 : 91–92. [English summary.]

**984.—Pérez-Reyes,** R. & **Navarro,** L. Observaciones sobre la transmision de *Plasmodium berghei* Vincke y Lips, 1948. Ciencia, Mexico **14** 1954 : 259–264. [English summary.]

**985.—Pessôa,** S. B. Parasitologia médica. 4th ed. Rio de Janeiro **1954** : 1026 pp. figs.

**Petepete,** A. *see* Lambillon, J.

**Petrovitch,** Z. *see* Simitch, T.

**986.—Petruševskij,** G. K. [Changes in the composition of the parasitic fauna of acclimatized fishes. (Incl. protozoa)]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 29–38. [In Russian.]

**987.—Petruševskij,** G. K. & **Bauer,** O. N. [Parasitic diseases of Siberian fishes and their economic and medical significance]. (Myxosporidia). Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 195–216. [In Russian.]

**988.—Petruševskij,** G. K., **Mosevič,** M. V. & **Ščupakov,** I. G. [Parasitic fauna of fishes of rivers Obi and Irtish]. (Including protozoa). Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 67–96. [In Russian.]

**989.—Petters, V.** Tertiary and Upper Cretaceous foraminifera from Colombia, S.A. Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

**990.—Petters, V.** Typical foraminiferal horizons in the Lower Cretaceous of Colombia, S.A. Contr. Cushman Fdn. **5** (3) 1954 : 128–137 figs.

**991.—Petters, V.** News—Columbia [Foraminifera]. Micropaleontologist **8** (1) 1954 : 7–8.

**Pfefferkorn, G.** *see* Krüger, F.

**992.—Phillips, B. P. & Bartgis, I. L.** Effects of growth *in vitro* with selected microbial associates and of encystation and excystation, on the virulence of *Endamoeba histolytica* for guinea pigs. Amer. J. trop. Med. Hyg. **3** 1954 : 621–627 fig.

**993.—Phillips, B. P., Wolfe, P. A., Rees, C. W., Gordon, H. A., Wright, W. H. & Reyniers, J. A.** Studies on the amoeba-bacteria relationship in amoebiasis. Comparative results of the intracecal inoculation of germ-free, mono-contaminated and conventional guinea pigs with *Endamoeba histolytica*. J. Parasit. **40** 1954 : Suppl. 22.

**994.—Phleger, F. B.** Foraminifera and deep-sea research. Deep-sea Res. **2** (1) 1954 : 1–23 figs.

**995.—Piekarski, G.** Lehrbuch der Parasitologie unter besonderer Berücksichtigung der Parasiten des Menschen. Berlin **1954** : xii+760 pp. figs.

**996.—Pietro, P. di.** Attivita antiprotozoaria della terramicina. Arch. Ital. Sci. med. trop. Parassit. **35** 1954 : 74–84. [English summary.]

**997.—Pifano, F.** Nueva trypanosomiasis humana de la region neotropica producida por el *Trypanosoma rangeli*, con especial referencia a Venezuela. Arch. Venezol. Pat. trop. **2** 1954 : 89–120 figs. [English summary.]

**998.—Pifano, F.** El diagnostico parasitologico de la enfermedad de Chagas en fase cronica. Arch. Venezol. Pat. trop. **2** 1954 : 121–156. [English summary.]

**999.—Pifano, F.** Estado actual del Kala-Azar en Venezuela. Arch. Venezol. Pat. trop. **2** 1954 : 213–219. [English summary.]

**1000.—Pigoń, A.** Respiration and cytochrome oxidase content in certain Infusoria (*Urostyla grandis* Ehrb. *Spirostomum minus* Roux, *Spirostomum intermedium* Kahl). Bull. Acad. polon. Sci. Cl. II **2** (**1**) 1954 : 131–143 figs.

**Pillay, T. V. R.** *see* Khajuria, H.

**Pintner, I. J.** *see* Provasoli, L.

**1001.—Pinto, A. R.** Uma modificação dos meios habituelmente usados na hemocultura do *Tripanosoma gambiense*. An. Inst. Med. trop., Lisbon **11** 1954 : 573–575. [English summary.]

**1002.—Pinto, A. R.** Novos dados sobre a mielocultura na doença do sono. An. Inst. Med. trop., Lisbon **11** 1954 : 577–579. [English summary.]

**1003.—Pinto, A. R.** A possible cause of error in the blood culture of *Trypanosoma gambiense*. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 70–71.

**1004.—Pires, F. A.** As tripanosomíases animais. An. Inst. Med. trop., Lisbon **9** (3) 1952 [1954] : 825–841.

**Pishvanova, L. S.** *see* Golubkov, N. A.

**Pittaluga, G.** *see* Mayo, M.

**1005.—Pizzi, T., Rubio, M. & Knierim, F.** Immunology of Chagas' disease. Bol. Chil. Parasit. **9** 1954 : 35–47. [Spanish with English summary.]

**1006.—Pizzi, T., Rubio, M. & Knierim, F.** Immunology of Chagas' disease. Riv. Parassit. **15** 1954 : 577–592.

**Pizzi, T.** *see* Rubio, M.

**1007.—Plessis, S. S. du.** Fish diseases in Transvaal. [Ciliates] Publ. Cons. Sci. Afr. Sud Sahara (C.S.A.) No. **6** 1954 : 128–129.

**1008.—Poisson, R.** Sous-ordre des Hémosporidies (Haemosporidiidea Danilewsky, 1889 emend. ; Doflein, 1901). In : Traité de Zoologie, Paris **1** (2) 1953 : 798–906 figs.

**1009.—Poisson,** R. Sporozoaires incertains : super-famille Babesioidea *nov.* In : Traité de Zoologie, Paris **1** (2) 1953 : 935–975 figs.

**1010.—Poisson,** R. Protistes parasites, intra- on extra-cellulaires, d'affinités incertaines. In : Traité de Zoologie, Paris **1** (2) 1953 : 976–1005 figs.

**1011.—Poisson,** R. Sous-embranchement des Cnidosporidies (Cnidosporidia Doflein, 1901 ; Nematocystida Delage et Hérouard, 1896 ; Neosporidia Schaudinn, 1900 p.p. ; Cnidiae Chatton, 1925, etc.). In : Traité de Zoologie, Paris **1** (2) 1953 : 1006–1088 figs.

**1012.—Poljanskij, J. I. & Orlova, A. F.** [Adaptive changes and enduring modifications in Infusoria *Paramaecium caudatum*, produced by high and low temperatures]. Doklady (C.R.) Acad. Sci. U.S.S.R. **59** 1948 : 1025–1028. [In Russian.]

**Poncet,** A. *see* Sergent, E.

**1013.—Pools,** J. W. The artificial transmission of *Globidium besnoiti* Marotel, 1912, to cattle and rabbits. J.S. Afr. vet. med. Ass. **25** 1954 : 37–44 figs.

**Pop,** A. *see* Bonciu, G.

**1014.—Popol,** S. A. & **Tromp,** S. W. The stratigraphy and main structural features of Afghanistan. I. and II. [Foraminifera]. Proc. Acad. Sci. Amst. **57B** (3) 1954 : 370–394.

**1015.—Porter,** A. Report of the Honorary Parasitologist for the year 1953. [Protozoa]. Proc. zool. Soc. Lond. **124** 1954 : 313–316.

**Porter,** K. R. *see* Meyer, H.

**Porter,** K. R. *see* Rudzinska, M. A.

**Porter,** K. R. *see* Sedar, A. W.

**1016.—Porter,** R. J., **Laird,** R. L. & **Dusseau,** E. M. Studies on malarial sporozoites. II. Effect of age and dosage of sporozoites on their infectiousness. Exper. Parasit. **3** 1954 : 267–274 figs.

**Post,** R. *see* Todd, R.

**Postma,** H. *see* Andel, T. van.

**1017.—Powers,** E. L., **Ehret,** C. F., & **Roth,** L. E. Morphology of the mitochondrion and its relationship to other structures in *Paramecium*. J. Protozool. **1** Suppl. 1954 : 5.

**Powers,** E. L. *see* Ehret, C. F.

**1018.—Prakash,** S. Note on natural parasitic infections found in *Rattus rattus* of Delhi municipal area. [Incl. protozoa]. Indian J. Malariol. **8** 1954 : 115–116.

**Prakash,** S. *see* Jaswant Singh.

**Prakash,** S. *see* Krishnaswami, A. K.

**1019.—Prasad,** R. R. & **Jayaraman,** R. Preliminary studies on certain changes in the plankton and hydrological conditions associated with the swarming of *Noctiluca*. Proc. Indian Acad. Sci. **40B** (2) 1954 : 49–57 figs.

**1020.—Preer,** J. R. & **Siegel,** R. W. Cytological demonstration of paramecin in *Paramecium aurelia*. Genetics **38** (6) 1954 : 684.

**1021.—Prescott,** D. M. & **Goldacre,** R. J. Relation between dye uptake and cytoplasmic streaming in *Amoeba proteus*. Nature, Lond. **172** 1953 : 593–594.

**1022.—Prescott,** D. M. & **Mazia,** D. The permeability of nucleated and enucleated fragments of *Amoeba proteus* to $D_2O$. Exp. Cell Res. **6** 1954 : 117–126 figs.

**1023.—Prey,** S. Geologie der Flyschzone im Gebiete des Pernecker Kogels westlich Kirchdorf a.d. Krems (Oberösterreich). [Foraminifera]. Jb. geol. Bundesanst. **94** 1950 : 93–165.

**Price,** D. L. *see* Hermann, C. M.

**Pridie,** E. *see* Boyd, J. S. K.

**Prieto Lorenzo,** A. *see* Matilla, V.

**1024.—Pringsheim,** E. G. Salzwasser-Eugleninen. Arch. Mikrobiol. **18** (2) 1953 : 149–164 figs.

**1025.—Pronin,** A. A. [On the coal-bearing Upper Namurian deposits of the eastern slope of the Middle Urals]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **98** (1) 1954 : 135–136. [In Russian.]

**Prosen,** A. F. *see* Manso Soto, A. E.

**1026.—Provasoli,** L. & **McLaughlin,** J. J. A. Fat-soluble requirements of a colorless marine flagellate. J. Protozool. **1** Suppl. 1954 : 8.

**1027.—Provasoli, L. & Pintner, I. J.** Ecological implications of *in vitro* nutritional requirements of algal flagellates. Ann. N.Y. Acad. Sci. **56** (5) 1953 : 839–846, 921–936, 1091–1098.

**1028.—Provasoli, L. & Pintner, I. J.** Assay of vitamin $B_{12}$ in sea water. [Flagellates]. Proc. Soc. Protozool. **4** 1953 : 10.

**Provasoli, L.** *see* Hutner, S. H.

**1029.—Pulvertaft, R. J. V., Valentine, J. C. & Lane, W. F.** The behaviour of *Toxoplasma gondii* on serum-agar culture. Parasitology **44** 1954 : 478–484.

**1030.—Puri, H. S.** Check list of Indian Tertiary larger foraminifera. J. Paleont. **28** (2) 1954 : 185–194.

**1031.—Puytorac, P. de.** Contribution à l'etude cytologique et taxonomique des Infusoires astomes. Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

**1032.—Puytorac, P. de.** Hématophagie chez *Nyctotherus scinci*, sp. nov., cilié hétérotriche parasite de *Scincus scincus* L. Remarques sur les Nyctothères. Bull. Soc. zool. Fr. **79** 1954 : 121–127 fig.

**1033.—Qureshi, M. A. A.** Experimental toxoplasmosis in chick embryos. Proc. 6th Pakist. sci. Conf. **3** 1954 : 225–226.

**1034.—Qureshi, M. A. A.** Experimental toxoplasmosis in chicken. Proc. 6th Pakist. sci. Conf. **3** 1954 : 226.

**1035.—Raabe, Z.** *Ambiphrya miri* g. n., sp. n. -eine Übergangsform zwischen *Peritricha-Mobilia* und Peritricha-*Sessilia*. Ann. Univ. M. Curie-Sklodowska **6C** (10) 1952 : 339–358, figs. [Polish with German and Russian summaries.]

**1036.—Radermecker, J.** Sur la précocité des modifications E. E. G. dans la trypanosomiase humaine expérimentale. Bull. Soc. Path. exot. **47** 1954 : 397–399.

**1037.—Raffaele, G.** On some problems arising from the observation of the infection with *Plasmodium berghei* in mice and rats. Indian J. Malariol. **8** 1954 : 291–299.

**1038.—Raffaele, G. & Carrescia, P. M.** Sull' azione della dieta lattea nelle infezioni da *Plasmodium berghei* dei topi e sua influenza sull' immunità. Riv. Malariol. **33** 1954 : 47–62. [English summary.]

**1039.—Ramakrishnan, S. P.** Studies on *Plasmodium berghei* Vincke and Lips, 1948. XVI. Effect of ketogenic diet on the course of blood-induced infection in rats. Indian J. Malariol. **8** 1954 : 85–88.

**1040.—Ramakrishnan, S. P.** Studies on *Plasmodium berghei* Vincke and Lips, 1948. XVII. Effect of different quantities of the same diet on the course of blood-induced infection in rats. Indian J. Malariol. **8** 1954 : 89–96.

**1941.—Ramakrishnan, S. P.** Studies on *Plasmodium berghei* Vincke and Lips, 1948. XVIII. Effect of diet different in quality but adequate in quantity on the course of blood-induced infection in rats. Indian J. Malariol. **8** 1954 : 97–105.

**1042.—Ramakrishnan, S. P.** Studies on *Plasmodium berghei* Vincke and Lips, 1948. XIX. The course of blood-induced infection in pyridoxine or vitamin $B_6$ deficient rats. Indian J. Malariol. **8** 1954 : 107–113.

**1043.—Ramakrishnan, S. P.** Malaria and nutrition with special reference to *Plasmodium berghei* infections in rats. Indian J. Malariol. **8** 1954 : 327–332.

**Ramakrishnan, S. P.** *see* Jaswant Singh.

**Ramakrishnan, S. P.** *see* Krishnaswami, A. K.

**Rambier, J.** *see* Tuzet, O.

**1044.—Ramos, A. & Farinhote, A. A. C.** Contribuição para o conhecimento do kala-azar em Portugal. An. Inst. Med. trop., Lisbon **9** 1952 [1954] : 1485–1500.

**1045.—Rao, L. R.** *Siderolites* from the Cretaceous rocks near Ariyalur (S. India). Curr. Sci. **23** (1) 1954 : 9–10 figs.

**1046.—Rao, R. R. & Cohly, M. A.** Micro-electrophoretic study of serum proteins from normal and malarial chicken (infected with *Plasmodium gallinaceum*). Curr. Sci. **22** (7) 1953 : 204–205.

**1047.—Rao,** S. R. & **Hiregaudar,** L. S. Coccidiosis in sheep and goats in Bombay State. Bombay Vet. Coll. Mag. **4** 1953–1954 : 1–5.

**1048.—Rao,** S. R. & **Hiregaudar,** L. S. Coccidial fauna of cattle in Bombay State, with particular reference to a recent outbreak at Orarey Milk Colony, together with a description of two new species, *Eimeria bombayansis* and *Eimeria khurodensis*. Bombay Vet. Coll. Mag. **4** 1953–1954 : 24–28.

**1049.—Rao,** S. R. N. News—India [Foraminifera]. Micropaleontologist **8** (1) 1954 : 15–21.

**1050.—Rao,** S. R. N. & **Mohan,** K. Microfossils from the Dogra slates (Pre-Cambrian) of Kashmir. [Radiolaria]. Curr. Sci. **23** (1) 1954 : 11–12 figs.

**Rat,** P. *see* Ciry, R.

**1051.—Rawley,** J. Observations on the maturation of gametocytes of *Leucocytozoon simondi*. Proc. helminth. Soc. Washington **20** 1953 : 127–128.

**Ray,** A. P. *see* Jaswant Singh.

**1052.—Ray,** D. L. & **Hayes,** R. E. *Hartmannella astronyxis* : a new species of free-living amoeba. Cytology and life cycle. J. Morph. **95** 1954 : 159–188 figs.

**1053.—Ray,** H. N. & **Gill,** B. S. Preliminary observations on alkaline phosphatase in experimental *Eimeria tenella* infection in chicks. Ann. trop. Med. Parasit. **48** 1954 : 8–10 figs.

**1054.—Ray,** H. N. & **Sen Gupta,** P. C. The cytology of *E. histolytica* : Part I. Bull. Calcutta Sch. trop. Med. **1** (4) 1954 : 20.

**1055.—Ray,** H. N. & **Sen Gupta,** P. C. A cytochemical study of *Entamoeba histolytica*. Bull. Calcutta Sch. trop. Med. **2** (1) 1954 : 2–3.

**1056.—Ray,** H. N. & **Sen Gupta,** P. C. A cytochemical study of *Balantidium coli*. Bull. Calcutta Sch. trop. Med. **2** (2) 1954 : 54–56.

**1057.—Ray,** H. N. & **Sen Gupta,** P. C. A cytochemical study of *Entamoeba histolytica*. J. Indian med. Ass. **23** 1954 : 529–533 figs.

**Ray,** H. N. *see* Sen, H. G.

**Ray,** H. N. *see* Sen Gupta, P. C.

**1058.—Ray,** N. K. & **Bose,** A. N. Preliminary observations on estrogen in *P. berghei* infection. Indian J. Malariol. **8** 1954 : 309–311.

**1059.—Ray,** S. M. Experimental studies on the transmission and pathogenicity of *Dermocystidium marinum*, a fungous parasite of oysters. [Haplosporidia]. J. Parasit. **40** 1954 : 235.

**1060.—Read,** C. P. & **Rothman,** A. Variables encountered during studies on the energy metabolism of *Trichomonas vaginalis*. J. Parasit. **40** 1954 : Suppl. 21.

**Reardon,** L. V. *see* Baernstein, H. D.

**Reardon,** L. V. *see* Rees, C. W.

**1061.—Rech-Frollo,** M. Grès du Flysch. Quelques observations tirées d'une étude comparée du Flysch carpatique, pyrénéen et alpin. [Foraminifera]. Bull. géol. Soc. Fr. (5) **20** 1950 : 81–92.

**1062.—Redmond,** C. D. Chamber arrangement in Foraminifera. (In reply to comments by Hofker). Micropaleontologist **8** (2) 1954 : 36.

**Reed,** J. J. *see* Wellmann, H. H.

**1063.—Rees,** C. W., **Taylor,** D. J. & **Reardon,** L. V. The presence of *Endamoeba histolytica* in the liver of guinea pigs with experimental intestinal amebiasis. J. Parasit. **40** 1954 : 390–391.

**Rees,** C. W. *see* Baernstein, H. D.

**Rees,** C. W. *see* Phillips, B. P.

**1064.—Reeves,** W. C., **Herold,** R. C., **Rosen,** L., **Brookman,** B. & **Hammon,** W. McD. Studies on avian malaria in vectors and hosts of encephalitis in Kern County, California. II. Infections in mosquito hosts. Amer. J. trop. Med. Hyg. **3** 1954 : 696–703.

**Reeves,** W. C. *see* Herman, C. M.

**Reeves,** W. C. *see* Rosen, L.

**1065.—Reger,** J. F. & **Beams,** H. W. Electron micrographs of the pellicle of a species of *Euglena*. Proc. Iowa Acad. Sci. **61** 1954 : 593–597 figs.

**1066.—Regonesi,** C., **Muranda,** M. & **Artigas,** J. The PVA fixative in the diagnosis of amebiasis and other intestinal parasites. Bol. Chil. Parasit. **9** 1954 : 105–109. [Spanish with English summary.]

**1067.—Reichel,** M. News—Switzerland. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 11–15.

**1068.—Reichenbach-Klinke,** H. Bemerkung zur Arbeit von D. Scheer : Vorläufige Mitteilung über *Dermocystidium percae* n. sp. eine neue Fisch Haplosporidie. Zool. Anz. **150** 1953 : 250.

**Reiner,** L. *see* Frank, H. G.

**1069.—Reiss,** Z. Two new species of Foraminifera from Israel. Bull. Res. Counc. Israel **2** (3) 1953 : 269–270 figs.

**1070.—Reiss,** Z. On the occurrence of *Globotruncana calcarata* Cushman 1927 in the Upper Cretaceous of Israel. Bull. Res. Counc. Israel **2** (3) 1953 : 270–272 fig.

**1071.—Reiss,** Z. Upper Cretaceous and Lower Tertiary *Bolivinoides* from Israel. Contr. Cushman Fdn. **5** (4) 1954 : 154–164 figs.

**1072.—Reiss,** Z. News—Israel. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 16–18.

**Reiss,** Z. *see* Avnimelech, M.

**1073.—Reith,** E. J. The inability to demonstrate acetylcholine or cholinesterase activity in *Tetrahymena*. Proc. Soc. Protozool. **4** 1953 : 17–18.

**1074.—Rendtorff,** R. G. The experimental transmission of human intestinal protozoan parasites. I. *Endamoeba coli* cysts given in capsules. Amer. J. Hyg. **59** 1954 : 196–208 fig.

**1075.—Rendtorff,** R. C. The experimental transmission of human intestinal protozoan parasites. II. *Giardia lamblia* cysts given in capsules. Amer. J. Hyg. **59** 1954 : 209–220.

**1076.—Rendtorff,** R. C. & **Holt,** C. J. The experimental transmission of human intestinal protozoan parasites. III. Attempts to transmit *Endamoeba coli* and *Giardia lamblia* cysts by flies. Amer. J. Hyg. **60** 1954 : 320–326.

**1077.—Rendtorff,** R. C. & **Holt,** C. J. The experimental transmission of human intestinal protozoan parasites. IV. Attempts to transmit *Endamoeba coli* and *Giardia lamblia* cysts by water. Amer. J. Hyg. **60** 1954 : 327–338 figs.

**Rennell,** T. *see* McCowen, M. C.

**Rennie,** P. J. *see* Blumenthal, H.

**Rešetnjak,** V. V. *see* Dogiel, V. A.

**1078.—Reusse,** U. Zur Klinik und Pathologie der Hunde-Babesiose. Z. Tropenmed. Parasit. **5** 1954 : 451–468 figs. [English summary.]

**1079.—Rey,** M. News—North Africa. [Foraminifera]. Micropaleontologist **8** (2) 1954 : 26–30.

**Reyniers,** J. A. *see* Phillips, B. P.

**Rezende,** C. L. de *see* Pellegrino, J.

**Ricciardi,** M. L. *see* Buonomini, G.

**1080.—Ritchey,** F. A. A cytological study of *Cyathodinium*. Proc. Soc. Protozool. **4** 1953 : 8.

**1081.—Ritter,** E. Cytoplasmic structure and cytochemistry of *Actinosphaerium eichhorni*. J. Protozool. **1** Suppl. 1954 : 9.

**1082.—Riveroll,** D. D. & **Jones,** B. C. Varves and foraminifera of a portion of the Upper Puente formation (Upper Miocene), Puente, California. J. Paleont. **28** (2) 1954 : 121–131 figs.

**1083.—Robert,** L. Sul valore patogeno dell' infestazione umana da *Lamblia intestinalis* (Lambl. 1859). Igiene mod. **47** 1954 : 289–300.

**1084.—Roberts,** O. J. The effect of cortisone on *Plasmodium berghei* infections. Parasitology **44** 1954 : 58–64 figs.

**1085.—Roberts,** O. J. The effect of cortisone on *Plasmodium berghei* infections. Parasitology **44** 1954 : 438–445 figs.

**Robertson,** M. *see* Kerr, W. R.

**1086.—Rocha,** A. T. News—Colonial Portugal. [Foraminifera]. Micropaleontologist **8** (3) 1954 : 13–14.

**Rocha-Lima,** H. da *see* Mayer, M.

**1087.—Rodaniche,** E. de. Spontaneous toxoplasmosis in the white-face monkey, *Cebus capucinus*, in Panama. Amer. J. trop. Med. Hyg. **3** 1954 : 1023–1026.

**1088.—Rodaniche,** E. de. Susceptibility of the marmoset, *Marikina geoffroyi*, and the night monkey, *Aotus zonalis*, to experimental infection with *Toxoplasma*. Amer. J. trop. Med. Hyg. **3** 1954 : 1026–1032.

**1089.—Rodhain,** J. *Eimeria vinckei* n. sp. parasite de l'intestin de *Thamnomys surdaster surdaster*. Ann. Parasit. hum. comp. **29** 1954 : 327–329 figs.

**1090.—Rodhain,** J. Essai d'adaptation du *Plasmodium vinckei* au rat blanc. Ann. Soc. Belge Méd. trop. **34** 1954 : 217–228.

**1091.—Rodhain,** J. Histoire de la recherche scientifique médicale et vétérinaire dans les territoires de l'Afrique au Sud de Sahara. [Protozoal diseases]. Ann. Soc. Belge Méd. trop. **34** 1954 : 535–554.

**1092.—Rodhain,** J. The absence of cross immunity between *Plasmodium berghei* (Vincke and Lips) and *Plasmodium vinckei* (Rodhain). Indian J. Malariol. **8** 1954 : 369–373.

**Rodriguez,** E. *see* Aaronson, S.

**Rodriguez,** E. *see* Baker, H.

**Rodriguez-Roda,** J. *see* Margalef, R.

**Roe,** F. J. C. *see* Garnham, P. C. C.

**1093.—Rogers,** K. B. Examination of faeces for infection and infestation. [Intestinal protozoa]. Brit. med. J. I. **1954** : 147–149 figs.

**1094.—Romaña,** C. Panorama epidemiologico de la enfermedad de Chagas en la Argentina a traves de investigaciones sistematicas. An. Inst. Med. reg. Tucuman **4** 1954 : 27–33. [French summary.]

**1095.—Romaña,** C. & **Abalos,** J. W. La enfermedad de Chagas en la Provincia de Tucuman. An. Inst. Med. reg., Tucuman **4** 1954 : 57–60. [French summary.]

**1096.—Romana,** C. & **Briones,** S. El xenodiagnostico como metodo para diagnosticar casos agudos de enfermedad de Chagas. An. Inst. Med. reg., Tucuman **4** 1954 : 34–41. [French summary.]

**1097.—Romaña,** C. & **Lifschitz,** J. Intradermo-reaccion con toxoplasmina en personas de Tucuman (R.A.). An. Inst. Med. reg., Tucuman **4** 1954 : 77–79. [French summary.]

**Romaña,** C. *see* Briones, S.

**Romaña,** C. *see* Sanjurjo, D.

**Roseman,** C. *see* Beverley, J. K. A.

**1098.—Rosen,** L. & **Reeves,** W. C. Studies on avian malaria in vectors and hosts of encephalitis in Kern County, California. III. The comparative vector ability of some of the local culicine mosquitoes. Amer. J. trop. Med. Hyg. **3** 1954 : 704–708.

**Rosen,** L. *see* Reeves, W. C.

**1099.—Rosenberg,** M. M., **Alicata,** J. E. & **Palafox,** A. L. Further evidence of hereditary resistance and susceptibility to cecal coccidiosis in chickens. Poultry Sci. **33** 1954 : 972–980 figs.

**Roth,** L. E. *see* Ehret, C. F.

**Roth,** L. E. *see* Powers, E. L.

**Rothman,** A. *see* Read, C. P.

**1100.—Roveda,** R. J. Bibliografia Zooparasitológica Veterinaria Argentina. Buenos Aires (Univ. of Buenos Aires) **1954** : 69 pp.

**1101.—Rubio,** M. & **Pizzi,** T. Action of primaquine, pentaquine and pentaquine-quinine on virulent blood stages of *Trypanosoma cruzi*. Bol. Chil. Parasit. **9** 1954 : 75–79. [Spanish with English summary.]

**Rubio,** M. *see* Pizzi, T.

**1102.—Rudzinska,** M. A. Giant individuals and vigor of populations in *Tokophrya infusionum*. Ann. N.Y. Acad. Sci. **56** (5) 1953 : 1087–1090 fig.

**1103.—Rudzinska,** M. A. & **Porter,** K. R. Submicroscopic morphology of structures involved in the feeding of *Tokophrya infusionum*. Proc. Soc. Protozool. **4** 1953 : 9.

**1104.—Rudzinska,** M. A. & **Porter,** K. R. Electron microscope study of intact tentacles and disc in *Tokophrya infusionum*. Experientia **10** (11) 1954 : 460–462 figs.

**1105.—Rudzinska,** M. A. & **Porter,** K. R. The origin and fine structure of the brood pouch in *Tokophrya infusionum*. J. Protozool. **1** Suppl. 1954 : 7–8.

**1106.—Rudzinska,** M. A. & **Porter,** K. R. The fine structure of *Tokophrya infusionum* with emphasis on the feeding mechanism. Trans. N.Y. Acad. Sci. (2) **16** (8) 1954 : 408–411.

**1107.—Ruge,** H. Neuere Ergebnisse auf dem Gebiet der Toxoplasmoseforschung. Medizinische, Stuttgart Nos. **11-12** 1954 : [*sep. pag.*].

**1108.—Ruiz,** A. & **Lizano,** C. Parasitos intestinales en niños. Estudio comparativo de los metodos diagnosticos usados. [Including protozoa]. Rev. Biol. trop. **2** 1954 : 29–36. [English summary.]

**1109.—Rukavina,** J. & **Delić,** S. A contribution to the laboratory diagnosis of sheep coccidia. Veterinarija, Sarajevo **3** 1954 : 127–130 figs.

**Rukavina,** J. *see* Delić, S.

**1110.—Rusconi,** C. Las friezas "Tipos" del Museo de Mendoza. [Foraminifera]. Rev. Mus. Hist. nat. Mendoza **7** (1–4) 1954 : 82–155.

**1111.—Russo,** A. Carattere femminile del soma e sua indipendenza in relazione all' origine dei blastomi. [Ciliates]. Atti. Accad. Gioenia (6) **8** 1953 : 159–163 fig. [English summary.]

**1112.—Russo, A.** Etiologia dei tumori ed i due fattori che vi collaborano. Identità di origine tra tumori e partenogenesi sperimentale. [Ciliates]. Atti Accad. Gioenia (6) **9** 1954 : 19–25 fig. [English summary.]

**1113.—Russo,** A. Fecondazioni strumentali nell' epoca del calore dei bovini confermano la teoria metabolica della determinazione del sesso. Analogie e richiamo a precedenti ricerche. [Ciliates]. Atti Accad. Gioenia (6) **9** 1954 : 245–250 figs.

**1114.—Russo,** A. Il ciclo vitale di "*Cryptochilium echini*" Mps., a differenza di altri infusori, ha fenomeni analoghi a quello dei metazoi. R.C. Accad. Lincei (8) **16** (1) 1954 : 3–5 fig.

**1115.—Ruzhentzev,** V. E. [Asselsk stratum in the Permian System]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **99** (6) 1954 : 1079–1082. [In Russian.]

**1116.—Ryckman,** R. E. A method of collecting large quantities of feces from Triatominae infected with *Trypanosoma cruzi*. J. econ. Entom. **47** 1954 : 170–171.

**1117.—Ryckman,** R. E. Lizards : a laboratory host for Triatominae and *Trypanosoma cruzi* Chagas. Trans. Amer. micr. Soc. **73** 1954 : 215–218.

**1118.—Ryley,** J. F. Carbohydrate metabolism in Protozoa and metal-binding substances. Nature, Lond. **171** 1953 : 747–748.

**Ryley,** J. F. *see* Keilin, D.

**1119.—Ryther,** J. H. The ecology of phytoplankton blooms in Moriches Bay and Great South Bay, Long Island, New York. Biol. Bull., Woods Hole **106** 1954 : 198–209.

**1120.—Šácha,** F. Protozoa aus dem Darmtractus des Pferdes. Acta Soc. zool. Bohemoslov. **17** (2) 1953 : 116–142 figs. [Czech with German summary.]

**1121.—Sachs,** J. B. Factors influencing the encystment and excystment of *Pelomyxa illinoisensis*. J. Protozool. **1** Suppl. 1954 : 8.

**1122.—Sachs,** J. B. The chemical nature of the cyst membranes of *Pelomyxa illinoisensis*. J. Protozool. **1** Suppl. 1954 : 8–9.

**1123.—Sager,** R. & **Palade,** G. E. Chloroplast structure in green and yellow strains of *Chlamydomonas*. Exper. Res. **7** 1954 : 584–588 figs.

**1124.—Saguchi,** S. On the fundamental structure of protoplasm. [Protozoa]. Protoplasma **43** (3) 1954 : 262–277.

**Saidova,** H. M. *see* Gorbunova, L. I.

**Salvadori,** F. B. *see* Stella, E.

**1125.—Samoilova,** R. B., **Smirnova,** R. F. & **Fornina,** E. V. [New data on the stratigraphy of Tulsk horizon of the Lower Carboniferous in Submoscovian depression]. [Foraminifera]. C.R. Acad. Sc. U.S.S.R., N.S. **96** (2) 1954 : 371–373 figs. [In Russian.]

**1126.—Samuels,** R. Abnormal mitosis and morphogenesis in *Tritrichomonas batrachorum*. J. Protozool. **1** Suppl. 1954 : 8.

**Sanger,** V. L. *see* Cole, C. R.

**1127.—Sanjurjo, D., Hack, W. H. & Romaña, C.** Contribucion al estudio de la endemia Chagasica en la Provincia Presidente Peron. An. Inst. Med. reg., Tucuman **4** 1954 : 19–26. [French summary.]

**Sarwar, M. M.** *see* Abdussalam, M.

**1128.—Saunders, D. C.** A new haemogregarine reported from the spotted squeteague, *Cynoscion nebulosus*, in Florida. J. Parasit. **40** 1954 : 699–700 fig.

**Saunders, J. B.** *see* Bolli, H. M.

**1129.—Savage, A. & Isa, J. M.** A photomicrograph of *Trichomonas fetus*. Cornell Vet. **44** 1954 : 375 fig.

**1130.—Sawada, T. & Hara, K.** Studies on the production of amebic liver abscess. (I) Experimental production of liver abscess in cats. Gunma J. med. Sci. **3** 1954 : 169–179 figs.

**1131.—Sawada, T. & Hara, K.** Studies on the production of amebic liver abscess. II. Experimental production of liver abscess in rabbits and dogs. Gunma J. med. Sci. **3** 1954 : 181–193 fig.

**Sawada, T.** *see* Hara, K.

**1132.—Saxe, L. H.** The enteric protozoa of laboratory Golden hamsters. J. Parasit. **40** 1954 : Suppl. 20.

**1133.—Saxe, L. H.** Transfaunation studies on the host specificity of the enteric Protozoa of rodents. J. Protozool. **1** (4) 1954 : 220–230.

**1134.—Saxe, L. H. & Schmidt, E. M.** *Trimitus parvus* Grassé (Protozoa, Mastigophora) from a garter snake, *Thamnophis radix*. Proc. Iowa Acad. Sci. **60** 1954 : 754–758 figs.

**Scheffels, E. L.** *see* Dalma, J.

**Schmidt, E. M.** *see* Saxe, L. H.

**Schmidt, R. G.** *see* Todd, R.

**1135.—Schmidtke, L.** Bemerkungen zur Verfütterung von *Toxoplasma* an Versuchstiere. Z. Tropenmed. Parasit. **5** 1954 : 182–183. [English summary.]

**1136.—Schmidtke, L.** Zur oralen Übertragbarkeit der Toxoplasmose. Zbl. Bakt. (I. Orig.) **160** 1954 : 470–478.

**Schmidtke, L.** *see* Kunert, H.

**1137.—Schneider, J.** *Plasmodium berghei* and chemotherapy. Indian J. Malariol. **8** 1954 : 275–279.

**1138.—Schneider, J., Montézin, G. & Dupoux, R.** Etude expérimentale et clinique de l'activité antipaludique d'une association de deux schizonticides : la chloroquine et la pyriméthamine. Bull. Soc. Path. exot. **47** 1954 : 791–795.

**1139.—Schnitzer, R. J. & Kelly, D. R.** Interference phenomenon of Browning and Gulbransen in experimental infection of mice with *Trichomonas vaginalis*. Proc. Soc. exp. Biol. Med. **85** 1954 : 123–124.

**Schnitzer, R. J.** *see* Kelly, D. R.

**1140.—Schoenborn, H. W.** Mutations in *Astasia longa* induced by radiation. J. Protozool. **1** 1954 : 170–173.

**1141.—Schoenborn, H. W. & Gibson, R. J.** Biochemical mutations in *Astasia longa*. J. Protozool. **1** Suppl. 1954 : 1.

**Schöneberger, A.** *see* Wagner, W. H

**1142.—Scholta, G.** Zur Spezifität der Komplementbindungsreaktion nach Westphal auf Toxoplasmose. Zbl. Bakt. (I. Orig.) **160** 1954 : 654–660.

**1143.—Scholtyseck, E.** Untersuchungen über die bei einheimischen Vogelarten vorkommenden Coccidien der Gattung *Isopora*. Arch. Protistenk. **100** 1954 : 91–112 figs.

**1144.—Scholtyseck, E.** Beobachtungen über den Austritt von ganzen Karyosomen ins Zytoplasma bei *Eimeria maxima*. Naturwissenschaften **41** (2) 1954 : 40 figs.

**1145.—Schroeder, M. C. & Bishop, E. W.** Notes on the foraminifera from the late Cenozoic in southern Florida. J. Paleont. **28** (2) 1954 : 210–213 fig.

**Schumacher, A.** *see* Kelly, D. R.

**1146.—Schumacher, J.** Die Flysch- und Parautochthonzone des oberen Engelbergertales. [Foraminifera]. Mitt. Naturf. Gesell. Bern. N.F. **7** 1950 : 1–52.

**Schwantes, H. O.** *see* Wohlfarth-Bottermann, K. E.

**Schwarz, R.** *see* Weikl, A.

**1147.—Schwink, T. M.** Factors affecting passive immunity in blood-induced *lophurae* malaria of the chicken. Amer. J. trop. Med. Hyg. **3** 1954 : 232–249.

**1148.—Ščupakov, I. G.** [New data on the biology and ecology of *Ichthyophthirius multifiliis* and their importance in control measures]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 70–74. [In Russian.]

**Ščupakov, I. G.** *see* Petruševskij, G. K.

**1149.—Seaman, G. R.** Enzyme systems in *Tetrahymena pyriformis* S. VI. Urea formation and breakdown. J. Protozool. **1** 1954 : 207–210 fig.

**1150.—Seaman, G. R. & Naschke, M. D.** Pyruvate oxidation by extracts of *Tetrahymena*. J. Protozool. **1** Suppl. 1954 : 5.

**1151.—Sedar, A. W. & Porter, K. R.** The fine structure of the cortical components of *Paramecium multimicronucleatum*. J. Protozool. **1** Suppl. 1954 : 4.

**1152.—Sen, H. G., Dutta, B. N. & Ray, N. W.** Effect of starvation on the course of experimentally induced *Trypanosoma evansi* infection in rats. Bull. Calcutta Sch. trop. Med. **2** (1) 1954 : 17–18.

**1153.—Senchi, M. & Morishima, M.** [On several problems in microfossil stratigraphy]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 304. [Abstract—in Japanese.]

**1154.—Seneca, H.** *In vitro* acquired resistance and sensitivity of *Endamoeba histolytica* to oxytetracycline. J. lab. clin. Med. **43** 1954 : 713–716.

**1155.—Seneca, H. & Bergendahl, E.** The synergistic amebicidal effect of tetracycline, oxytetracycline and carbomycin on cultures of *Endamoeba histolytica*. Amer. J. Med. Sci. **228** 1954 : 16–20.

**1156.—Seneca, H. & Bergendahl, E.** Carbomycin, a growth-maintaining factor for *Endamoeba histolytica* cultures. Science **120** 1954 : 988–989.

**1157.—Seneš, J.** [La faune du Schlier Hélvétien des environs de Modrý Kameň, Slovaquie du Sud]. [Foraminifera]. Geol. Sborn. Slovensk. Akad. v. u. Bratislava **1** 1950 : 110–129. [French summary.]

**1158.—Sen Gupta, P. C. & Ray, H. N.** Localisation of the phosphatases in *Leishmania donovani*. Bull. Calcutta Sch. trop. Med. **1** (2) 1954 : 4–5.

**1159.—Sen Gupta, P. C., Ray, H. N., Dutta, B. N. & Chaudhuri, R. N.** Studies on the cytology of *P. berghei* : Part II. Bull. Calcutta Sch. trop. Med. **1** (4) 1954 : 19–20.

**Sen Gupta, P. C.** *see* Ray, H. N.

**1160.—Sergent, E.** L'étude immunologique expérimentale du paludisme à *Plasmodium berghei*. Arch. Inst. Pasteur Algér. **32** 1954 : 277–298.

**1161.—Sergent, E.** Experimental study on the immunology of malaria due to *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 333–345.

**1162.—Sergent, E.** La prémunition antipaludique et les accès de prémunis. Riv. Parassit. **15** 1954 : 651–654.

**1163.—Sergent, E., Donatien, A. & Parrot, L.** Du genre *Piroplasma l.s.* et des sous-genres *Piroplasma s.s.* et *Babesiella* (Hémocytozoaires). Arch. Inst. Pasteur Algér. **32** 1954 : 194–197.

**1164.—Sergent, E. & Poncet, A.** Longue durée d'une infection latente à toxoplasmes chez un canari. Arch. Inst. Pasteur Algér. **32** 1954 : 15–17.

**1165.—Seshachar, B. R. & Dass, C. M. S.** The macronucleus of *Epistylis articulata* From., during conjugation : A photometric study. Physiol. Zoöl. **27** 1954 : 280–286 figs.

**1166.—Shaffer, J. G. & Balsam, T.** Ability of *Endamoeba histolytica* to phagocytose red blood cells. Proc. Soc. exp. Biol. Med. **85** 1954 : 21–24 figs.

**1167.—Shikani, T.** [A handbook of illustrated fossils from Japan and their adjacent Territories]. [Foraminifera]. Kyôto **1952** : 193–204 figs. [In Japanese.]

**1168.**—**Shikanuma, M.** [On Paleozoic strata in Korikami-gun and Bugi-gun, Gifu Prefecture.] [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 292. [Abstract—in Japanese.]

**1169.**—**Shinomoto, R.** [Geological study of the east of the Misaka Hills]. [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 296–297. [Abstract—in Japanese.]

**1170.**—**Shomay, D.** The genus *Lagenophrys* Stein 1852 (Ciliata ; Peritricha) in North America. Proc. Soc. Protozool. **4** 1953 : 19–20.

**1171.**—**Shomay, D.** The structure and life history of *Lagenophrya labiata* Stokes (Ciliata, Peritricha). J. Protozool. **1** Suppl. 1954 : 2.

**1172.**—**Shomay, D.** The natural history of *Lagenophrya labiata* Stokes (Ciliata, Peritricha). J. Protozool. **1** Suppl. 1954 : 9.

**1173.**—**Shortt, H. E., Bray, R. S. & Cooper, W.** Further notes on the tissue stages of *Plasmodium cynomolgi*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 122–131. figs.

**1174.**—**Shrivastav, J. B.** Comparative efficiency of three different techniques for the diagnosis of cystic forms of intestinal protozoa and helminthic ova in faeces. Indian J. med. Res. **42** 1954 : 497–508.

**Shupe, J. LeG.** *see* Fitzgerald, P. R.

**Shute, G. T.** *see* Clyde, D. F.

**1175.**—**Shute, P. G. & Maryon, M** A contribution to the problem of strains of human *Plasmodium*. Riv. Malariol. **33** 1954 : 1–21.

**1176.**—**Shute, P. G. & Maryon, M.** The effect of pyrimethamine (daraprim) on the gametocytes and oocysts of *Plasmodium falciparum* and *Plasmodium vivax*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 50–63 figs.

**1177.**—**Shute, P. G. & Maryon, M.** Specimens of *Plasmodium falciparum* ring forms showing : (1) parasite protruding beyond the host cell in a very thin and rapidly dried film ; (2) parasites upon, but not protruding beyond, the host cells in a "thickish thin" film. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 288.

**1178.**—**Sidwell, R. & Warn, G. F.** Pennsylvanian sedimentation in north-eastern Socorro County, New Mexico. [Foraminifera]. J. Sediment. Petrol. **21** 1951 : 3–11.

**1179.**—**Siegel, R. W.** A genetic analysis of the mate-killer trait in *Paramecium aurelia*, variety 8. Genetics **38** (6) 1954 : 550–560.

**1180.**—**Siegel, R. W.** Mate-killing in *Paramecium aurelia* variety 8. Physiol. Zoöl. **27** 1954 : 89–100 figs.

**Siegel, R. W.** *see* Preer, J. R.

**1181.**—**Siemińska, J.** The plankton of the artificial lake at the Rożnów Dam. Mém. Acad. Sci. Cracovie **18** 1952 : 1–109 figs.

**1182.**—**Silva, I. I.** Metodo de cultivo del *Trypanosoma* (*Schizotrypanum*) *cruzi* para la preparacion de antigenos. An. Inst. Med. reg., Tucuman **4** 1954 : 71–75. [English summary.]

**1183.**—**Silva, J. M. da.** Sobre a tripanosomiase virulenta dos suinos. An. Inst. Med. trop., Lisbon **11** 1954 : 479–538 figs. [English summary.]

**1184.**—**Silva, L. H. P. da & Nussenzweig, G.** Sôbre uma cepa de *Trypanosoma cruzi* altamente virulenta para o camundongo branco. Folia clin. biol., S. Paulo **20** 1953 : 191–207 figs.

**Silva, R.** *see* Horwitz, E.

**Silva, R.** *see* Neghme, A.

**1185.**—**Silva, T. L. da.** Aspectos da epidemiologia e profilaxia da molestia de Chagas no Estado de São Paulo. Arq. Hig. Saude Publ. **19** 1954 : 3–6.

**1186.**—**Silva-Insunza, E. & Coutts, W. E.** Trypanosomes in unstained fixed smears observed with the phase-contrast microscope. Bol. Chil. Parasit. **9** 1954 : 115–116. [Spanish with English summary.]

**1187.**—**Silva-Inzunza, E., Coutts, W. E. & Coutts, W. R.** Spirochaetoidea and protozoa pathogenous for man as seen in fixed unstained smears and under dark-field illumination or the phase contrast microscope. J. trop. Med. Hyg. **57** 1954 : 292–294 figs.

**1188.—Simitch, T., Gvozdenovitch, M. & Nevenitch, V.** Peut-on considérer le chien comme réservoir d'infection pour l'homme par le kala-azar, dans toutes les régions de la Yougoslavie où cette maladie est endémique ?. Bull. Acad. Serbe Sci. **11** 1954 : 42–43.

**1189.—Simitch, T., Petrovitch, Z. & Chibalitch, D.** Importance de la coproculture pour la recherche d' *Entamoeba dysenteriae* dans l'amibiase latente et chez les porteurs sains. Arch. Inst. Pasteur Algér. **32** 1954 : 96–102.

**1190.—Simitch, T., Petrovitch, Z. & Chibalitch, D.** La vitalité des kystes de *Entamoeba dysenteriae* en dehors de l'organisme de l'hôte. Arch. Inst. Pasteur Algér. **32** 1954 : 223–231.

**1191.—Simitch, T., Petrovitch, Z. & Chibalitch, D.** La longévité des kystes d'*Entamoeba dysenteriae* dans les denrées alimentaires. Arch. Inst. Pasteur Algér. **32** 1954 : 305–308.

**1192.—Simitch, T., Petrovitch, Z. & Lepech, T.** Contribution à la connaissance de la biologie des *Trichomonas*. II. Différenciation de *T. microti* Wenrich et Saxe, 1950 et de *T. intestinalis* Leuckart 1879, par leurs caractères biologiques. Ann. Parasit. hum. comp. **29** 1954 : 199–205.

**1193.—Singer, I.** The effect of splenectomy or phenylhydrazine on infections with *Plasmodium berghei* in the white mouse. J. inf. Dis. **94** 1954 : 159–163 figs.

**1194.—Singer, I.** The effect of cortisone on infections with *Plasmodium berghei* in the white mouse. J. inf. Dis. **94** 1954 : 164–172 figs.

**1195.—Singer, I.** The course of infection with *Plasmodium berghei* in inbred CFI mice. J. inf. Dis. **94** 1954 : 237–240 figs.

**1196.—Singer, I.** The cellular reactions to infections with *Plasmodium berghei* in the white mouse. J. inf. Dis. **94** 1954 : 241–261 figs.

**1197.—Singh, B. N. & Crump, L. M.** The effect of partial sterilization by steam and formalin on the numbers of amoebae in field soil. J. gen. Microbiol. **8** 1953 : 421–426.

**1198.—Singh, S.** The Miocene beds of Bhuteshwar near Gogha (Saurashtra). [Abstract]. Proc. Indian Sci. Congr. **40** (3) 1953 : 25.

**1199.—Singh, S. N.** Foraminiferal genera and species from the Kirthars near Kolayat (Bikaner, Rajasthan). [Abstract]. Proc. Indian Sci. Congr. **40** (3) 1953 : 25–26.

**1200.—Singh, S. N.** Genus *Linderina* in the Kirthar formations of Kolayat (Bikaner, Rajasthan). [Abstract]. Proc. Indian Sci. Congr. **40** (3) 1953 : 26.

**1201.—Skinner, J. W. & Wilde, G. L.** The fusulinid subfamily Boultoniinae. J. Paleont. **28** (4) 1954 : 434–444 figs.

**1202.—Skinner, J. W. & Wilde, G. L.** Fusulinid wall-structure. J. Paleont. **28** (4) 1954 : 445–451 figs.

**1203.—Skinner, J. W. & Wilde, G. L.** New early Pennsylvanian fusulinids from Texas. J. Paleont. **28** (6) 1954 : 796–803 figs.

**1204.—Slama, D. C.** Arenaceous tests in Foraminifera—an experiment. Micropaleontologist **8** (1) 1954 : 33–34.

**1205.—Slater, J. V.** Temperature tolerance in *Tetrahymena*. Amer. Nat. **88** (840) 1954 : 168–171 fig.

**1206.—Slater, J. V.** The quantitative evaluation of dissolved organic matter in natural waters. [Protozoa]. Trans. Amer. micr. Soc. **73** (4) 1954 : 416–423.

**1207.—Slobodkin, L. B.** On possible initial condition for red tides on the coast of Florida. J. mar. Res. **12** (1) 1953 : 148–155 fig.

**1208.—Smet, R. De & Frankie, G.** Quelques observations sur l'immunité vis-à-vis du *Plasmodium berghei*. Ann. Soc. Belge Méd. trop. **34** 1954 : 881–891.

**1209.—Smet, R. M. De & Frankie, G.** Some observations about immunity to *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 375–390.

**Smirnova, R. F.** *see* Samoilova, R. B.

**Smith, C. S.** *see* Jones, F. E.

**1210.—Sobels,** J. C. & **Cohen,** A. L. The isolation and culture of opsimorphic organisms. II. Notes on isolation, purification, and maintenance of myxomycete plasmodia. Ann. N.Y. Acad. Sci. **56** (5) 1953 : 944–948.

**1211.—Solovyeva,** M. K. & **Tchekhovitch,** V. D. [Bashkirsk deposits of Central Asia]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **94** (3) 1954 : 549–550. [In Russian.]

**1212.—Soltys,** M. A. Transmission of *T. congolense* by other vectors than tse-tse flies. 5th Meet. Intern. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 137–140.

**1213.—Sonneborn,** T. M. Cellular transformations. [Ciliates]. Harvey Lectures, New York, Ser. **44** 1950 : 145–164 figs.

**1214.—Sonneborn,** T. M. Patterns of nucleocytoplasmic integration in *Paramecium*. Caryologia, vol. suppl. **1954** : 307–325.

**1215.—Sonneborn,** T. M. The relation of autogamy to senescence and rejuvenescence in *Paramecium aurelia*. J. Protozool. **1** 1954 : 38–53 figs.

**Sonnenberg,** B. *see* Wilks, N. E.

**Sosna,** M. *see* Jírovec, O.

**Sotomayor,** P. *see* Neghme, A.

**1216.—Sousa Dias,** V. As tripanossomíases animais em Angola. An. Inst. Med. trop., Lisbon **9** (3) 1952 [1954] : 765–824.

**Spada,** A. *see* Ippolito, F.

**1217.—Spiegelman,** C. & **Landman,** O. E. Genetics of microorganisms. Annu. Rev. Microbiol. **8** 1954 : 181–236.

**Spingarn,** C. L. *see* Edelman, M. H.

**1218.—Sprague,** V. Studies on morphology and life cycle of *Nematopsis prytherchi* Sprague and *N. ostrearum* Prytherch, emend. J. Protozool. **1** Suppl. 1954 : 4.

**1219.—Squire,** F. A. Observations on the incidence of trypanosomes in *Glossina palpalis* (R.-D.) in Sierra Leone. Bull. ent. Res. **45** 1954 : 797–801 figs.

**1220.—Šrámek-Hušek,** R. Neue und wenig bekannte Ciliaten aus der Tschechoslowakei und ihre Stellung im Saprobrensystem. Arch. Protistenk. **100** 1954 : 246–267 figs.

**1221.—Stabler,** R. M. *Trichomonas gallinae* : a review. Exper. Parasit. **3** 1954 : 368–402 figs.

**1222.—Stabler,** R. M. & **Kihara,** J. T. Results of placing single Trichomonads (*T. gallinae*) in the mouths of pigeons. J. Parasit. **40** 1954 : Suppl. 25.

**1223.—Stabler,** R. M. & **Kihara,** J. T. Infection and death in the pigeon resulting from the oral implantation of single individuals of *Trichomonas gallinae*. J. Parasit. **40** 1954 : 706.

**1224.—Stainforth,** R. M. News—Peru. [Foraminifera]. Micropaleontologist **8** (3) 1954 : 7.

**1225.—Stauber,** L. A. Application of electrophoretic techniques in the field of parasitic diseases. [Incl. protozoa]. Exper. Parasit. **3** 1954 : 544–568.

**1226.—Stauber,** L. A., **Ochs,** J. Q. & **Coy,** N. H. Electrophoretic patterns of the serum proteins of chinchillas and hamsters infected with *Leishmania donovani*. Exper. Parasit. **3** 1954 : 325–335 fig.

**Stauber,** L. A. *see* McDermott, J. J.

**1227.—Steenis,** P. B. van. *Plasmodium berghei*. Nederl. Tijdschr. Geneesk. **20** 1954 : 3403–3409.

**1228.—Stein,** G. A. [Materials for an investigation of parasites of fishes of the Baltic coast. Ciliates of the genus *Trichodina*]. Učenye Zapiski LGU [=Scient. Notes of Leningrad State Univ.] No. 172 (Ser. Biol. Sci. 35) 1954 : 177–184 figs. [In Russian.]

**1229.—Stelck,** C. R. & **Wall,** J. H. Kaskapan Foraminifera from the Peace River area of Western Canada. Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

**1230.—Stella,** E. & **Salvadori,** F. B. La fauna acquatica della grotta "di punta degli Stretti" (Monte Argentario). [Protozoa]. Arch. zool. ital. Napoli **38** 1954 : 441–483 figs.

**1231.—Stepanov,** D. L. [The *Schwagerina* horizon of the Sakmar Bed and the Permo-Carboniferous boundary]. [Foraminifera]. Bull. Acad. Sci. URSS. Geol. **1** 1954 : 107–117. [In Russian.]

**Sterbenz,** F. J. *see* Lilly, D. M.

**Stickney,** A. P. *see* Uzmann, J. R.

**1232.—Stiller,** J. Epizoische Peritrichen aus dem Balaton III. Hydrobiologia **5** (1–2) 1953 : 189–221 figs.

**1233.—Stoljarov,** V. P. [Parasitic fauna of fishes in Rybinsk water reservoir. (Incl. protozoa)]. Trud. Leningr. Soc. Nat. (Zool.) **71** (4) 1952 : 261–285. [In Russian.]

**1234.—Stoljarov,** V. P. [Parasitic fauna of fishes in the Rybinsk reservoir during seven years of its existence (Incl. protozoa)]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 54–56. [In Russian.]

**1235.—Storm,** J. & **Hutner,** S. H. Linoleic acids, cyanocobalamin and some other identified growth requirements of *Peranema*. Proc. Soc. Protozool. **4** 1953 : 10.

**1236.—Stout,** J. D. The ecology, life history and parasitism of *Tetrahymena* [*Paraglaucoma*] *rostrata* (Kahl) Corliss. J. Protozool. **1** 1954 : 211–215 figs.

**1237.—Stout,** J. D. Some observations on the ciliate fauna of an experimental meat digestion plant. Trans. Roy. Soc. N.Z. **82** 1954 : 199–211 figs.

**1238.—Stout,** J. D. The effect of environmental factors on the life history of the ciliate, *Vorticella microstoma*. Trans. Roy. Soc. N.Z. **82** 1954 : 705–711 fig.

**1239.—Studić,** D. Histological findings in toxoplasmosis of hares perished in nature. Veterinarija, Sarajevo **2** 1953 : 352–362 figs.

**1240.—Subrahmanyan,** R. A new member of the Euglenineae, *Protoeuglena noctilucae* gen. et sp. nov., occurring in *Noctiluca miliaris* Suriray, causing green discoloration of the sea off Calicut. Proc. Indian Acad. Sci. **39B** (3) 1954 : 118–127 figs.

**1241.—Suchanova,** K. M. [Influence of environmental factors on the life-cycle of *Opalina ranarum*]. Scient. Notes State Pedagogic Inst. (Chair of Zool.) **91** 1953 : 31–69 figs. [In Russian.]

**Sugimura,** S. *see* Nübori, T.

**1242.—Šulman,** S. S. [Bearing of data on parasites of fishes on related disciplines. (Incl. protozoa)]. Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 153–162. [In Russian.]

**1243.—Šulman,** S. S. [Specificity of fish parasites. (Incl. protozoa)]. Zool. Zhurn., Moscow **33** 1954 : 14–25. [In Russian.]

**1244.—Sultanaer,** A. A. [Stratigraphy of the Upper Paleoezoic of Kolvo-Vishersk Land]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **98** (2) 1954 : 257–258. [In Russian.]

**Sussman,** M. *see* Sussman, R. R.

**1245.—Sussman,** R. R. & **Sussman,** M. Cellular differentiation in Dictyostelieaceae ; heritable modifications of the developmental pattern. Ann. N.Y. Acad. Sci. **46** (6) 1953 : 949–960 figs.

**Suter,** E. *see* Vischer, W. A.

**Sutherland,** B. W. *see* Harris, R. W.

**Suzuki,** M. *see* Okishima, K.

**1246.—Svanidze,** D. P. [New method for the study of experimental amoebiasis]. Med. Parasitol., Moscow No. 2 1954 : 138–141 figs. [In Russian.]

**Swerdlow,** M. A. *see* Burrows, R. B.

**Tai,** Y. *see* Imamura, G.

**Taillefer-Grimaldi,** J. *see* Masseguin, A.

**1247.—Talice,** R. V., **Gurri,** J. & **Perez-Moreira,** L. Sensibilidad experimental de *Ctenomys torquatus* (tucu-tucu) a *Toxoplasma gondii*. Arch. Soc. Biol. Montevideo **21** 1954 : 100–108 figs. [English summary.]

**1248.—Talice,** R. V., **Perez-Moreira** L. & **Mossera,** S. L. de. Primer hallazgo de infeccion natural de *Ctenomys torquatus* (tucu-tucu) por *Toxoplasma* (*T. gondii* ?). Arch. Soc. Biol. Montevideo **21** 1954 : 109–116 figs. [English summary.]

**Tappan,** H. *see* Loeblich, A. R. jr.

1249.—**Tarantola, V. & Lilly, D. M.** Growth promotion by substituted purines in a carnivorous ciliate feeding on *Tetrahymena*. Proc. Soc. Protozool. **4** 1953 : 18–19.

1250.—**Tartar, V.** Anomalies in regeneration of *Paramecium*. J. Protozool. **1** 1954 : 11–17, 19 figs.

1251.—**Taylor, D. J. & Greenberg, J.** Hyperactivity of metachloridine on *Plasmodium gallinaceum* in chicks maintained on a defined diet. J. Parasit. **40** 1954 : Suppl. **23.**

**Taylor, D. J.** *see* Greenberg, J.

**Taylor, D. J.** *see* Rees, C. W.

1252.—**Taylor, M.** *Amoeba discoides* recorded from Milngavie, Dunbartonshire. Nature, Lond. **171** 1953 : 225.

1253.—**Taylor, M.** Effect of thyroid gland on the cultivation of *Amoeba proteus*. Nature, Lond. **171** 1953 : 313–314.

1254.—**Taylor, M.** A biological agent for securing large numbers of *Amoeba proteus*. Nature, Lond. **171** 1953 : 704.

1255.—**Tchan, Y. T. & Bunt, J. S.** Direct microscopy for study and count of soil Protozoa. Nature, Lond. **174** 1954 : 656.

**Tchekhovitch, V. D.** *see* Solovyeva, M. K.

1256.—**Téllez-Girón, C.** News—Mexico. [Foraminifera]. Micropaleontologist **8** (2) 1954 : 10.

1257.—**Téllez-Girón, C.** News—Mexico [Fossil protozoa]. Micropaleontologist **8** (4) 1954 : 3.

**Tentori, L.** *see* Corradetti, A.

1258.—**Tewari, B. S.** The Eocene genus *Hantkenina* Cushman in Kutch. [Abstract]. Proc. Indian Sci. Congr. **40** (3) 1953 : 26–27.

1259.—**Thalmann, H. E.** Status of invertebrate paleontology 1953. II. Protozoa. Bull. Mus. comp. Zool. Harv. **112** 1954 : 99–108.

1260.—**Thalmann, H. E.** *Pÿpersia* nom. nov. for *Ruttenia* Pÿpers 1933, a homonym of *Ruttenia* Rodhain 1924. Contr. Cushman Fdn. **5** (4) 1954 : 153.

1261.—**Thalmann, H. E.** Bibliography and index to new genera, species, and varieties of foraminifera for the year 1953. J. Paleont. **28** (6) 1954 : 840–873.

1262.—**Thalmann, H. E.** News—Western United States. [Foraminifera]. Micropaleontologist **8** (2) 1954 : 4–7.

1263.—**Thalmann, H. E. & Bermudez, P. J.** *Chitinosiphon*, a new genus of the Rhizamminidae. Contr. Cushman Fdn. **5** (2) 1954 : 53–54 fig.

1264.—**Théodoridès, J.** Description complémentaire de *Stylocephalus gladiator* (L. F. Blanchard 1905) (Eugregarina Stylocephalidae). Ann. Parasit. hum. comp. **29** 1954 : 33–36 figs.

1265.—**Théodoridès, J.** *Leidyana leidyi* Watson Kamm 1917 est un *Cystocephalus* (Eugregarina Stylocephalidae). Ann. Parasit. hum. comp. **29** 1954 : 595–596.

1266.—**Théodoridès, J.** Indentité de *Gregarina diabrotica* Watson Kamm 1918 avec *Gregarina munieri* A. Schneider 1876 (Eugregarina Gregarinidae). Ann. Parasit. hum. comp. **29** 1954 : 596.

1267.—**Théodoridès, J.** Parasitisme et écologie. [Incl. protozoa]. Biol. méd., Paris **43** 1954 : 440–463.

1268.—**Thiel, P. H. van.** Trematode, gregarine and fungus parasites of *Anopheles* mosquitoes. J. Parasit. **40** 1954 : 271–279 figs.

**Thienpont, D.** *see* Herin, V. V.

1269.—**Thompson, P. E., McCarthy D. & Reinertson, J. W.** Observations on the virulence of *Endamoeba histolytica* during prolonged subcultivation. Amer. J. Hyg. **59** 1954 : 249–261.

**Thomson, J. N.** *see* Goodwin, J. C.

**Thorson, R. E.** *see* Hayes, F. A.

1270.—**Thurston, J. P.** Anaemia in mice caused by *Eperythrozoon coccoides* (Schilling, 1928). Parasitology **44** 1954 : 81–98 figs.

1271.—**Thurston, J. P.** The chemotherapy of *Plasmodium berghei*. II. Antagonism of the action of drugs. Parasitology **44** 1954 : 99–110.

**1272.—Tintant, H.** Etudes sur la microfauna du Néogène de Turquie. I. La microfaune du Pliocène de Datça. [Foraminifera]. Bull. sci. Bourgogne **14** 1954 : 185–208 figs.

**1273.—Titova, S. D.** [Parasites of fishes in Telets lake. (Incl. protozoa).] Trans. 7th Conf. Parasitol. Probl., Moscow **4** 1954 : 79–84. [In Russian.]

**1274.—Tittler, I. A. & Bovell, C.** Effect of sulfonamides on thiamine requirement of *Tetrahymena geleii*. Proc. Soc. exp. Biol. Med. **85** 1954 : 495–496.

**1275.—Tobie, E. J.** The effect of puromycin on six species of *Trypanosoma* in mice. Amer. J. trop. Med. Hyg. **3** 1954 : 852–859.

**Tobie, E. J.** *see* Brand, T. von.

**1276.—Todd, R.** Recent literature on the Foraminifera. Contr. Cushman Fdn. **5** (1) 1954 : 42–43.

**1277.—Todd, R.** Recent literature on the Foraminifera. Contr. Cushman Fdn. **5** (2) 1954 : 88–89.

**1278.—Todd, R.** Recent literature on the Foraminifera. Contr. Cushman Fdn. **5** (3) 1954 : 145–6.

**1279.—Todd, R.** Recent literature on the Foraminifera. Contr. Cushman Fdn. **5** (4) 1954 : 192–193.

**1280.—Todd, R.** News—Eastern United States. [Foraminifera]. Micropaleontologist **8** (1) 1954 : 2.

**1281.—Todd, R.** The smaller foraminifera in correlation and paleoecology. Science **119** 1954 : 448.

**1282.—Todd, R. & Brönnimann, P.** Appendix I. Foraminifera in " Probable occurrence of Oligocene in Saipan ", Todd etc. Amer. J. Sci. **252** (11) 1954 : 673–682 figs.

**1283.—Todd, R., Cloud, P. E. *jr.*, Low, D. & Schmidt, R. G.** Probable occurrence of Oligocene on Saipan. [Foraminifera]. Amer. J. Sci. **252** (11) 1954 : 673–682 figs.

**1284.—Todd, R. & Post, R.** Smaller foraminifera from Bikini Drill Holes. U.S. Geol. Surv. Prof. Paper 266–N. 1954 : 547–568 figs.

**1285.—Tomić-Džodžo, R.** [A palaeontological treatise of microfauna from the well drilling Tušanj III—Donja Tuzla (Bosnia)]. [Foraminifera]. Zborn. Radova geol. Inst. **4** 1952 : 243–267 figs. [English summary : 263–7.]

**1286.—Tomić-Džodžo, R.** [Beitrag zur Kenntnis der Mikrofossilfauna aus dem II. Mediteran des Baches Bučvar (Umg. von Beograd)]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953 : 89–104 figs. [German summary : 104–5.]

**1287.—Tomić-Džodžo, R.** [A foregoing note on the results achieved in the study of microfauna from the Sarmatic layers in the surroundings of Belgrade (localities Jajinci, Rakovica, and to the south of Torlak)]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953 : 107–143 figs. [English summary : 143–4].

**1288.—Tomić-Džodžo, R. & Veljković-Zajec, K.** [Die tortoneschen Mikrofaunen des Denin-Majdan Profils (Umgebung von Beograd)]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953 : 159–174 figs. [German summary : 174–5.]

**Tomita, S.** *see* Nübori, T.

**1289.—Toomey, D. F.** A bibliography of the family Fusulinidae. J. Paleont. **28** (4) 1954 : 465–484.

**1290.—Toranzos, L. B.** La *Entamoeba coli* en nuestros examenes coprologicos. An Inst. Med. reg., Tucuman **4** 1954 : 81–84. [English summary.]

**1291.—Torch, R.** Observations on the mitochondria of *Pelomyxa carolinensis*. Proc. Soc. Protozool. **4** 1953 : 11–12.

**1292.—Torch, R.** Centrifuge studies on *Pelomyxa carolinensis*. Proc. Soc. Protozool. **4** 1953 : 20.

**1293.—Torrealba, J. F.** Nota preliminar sobre un tripanosoma del grupo *lewisi*, comprobado en el roedor *Dasyprocta rubrata* de Venezuela. Gac. méd. Caracas **61** 1954 : 37–52 figs.

**Toschi, G.** *see* Corradetti, A.

**1294.—Trager, W.** Nutrition and experimental malaria. Brit. med. J. I **1954** : 1265.

**1295.—Trager,** W. Coenzyme A and the malaria parasite *Plasmodium lophurae*. J. Protozool. **1** 1954 : 231–237.

**1296.—Trager,** W. Coenzyme A and the malaria parasite *Plasmodium lophurae*. J. Protozool. **1** Suppl. 1954 : 1.

**1297.—Travassos Santos Dias,** J. A. Sobre a prioridade do genero *Piroplasma* Patton, 1895, na sistematica-dos emoparasitas da sub-ordem Piroplasmidae. An. Inst. Med. trop., Lisbon **10** 1953 [1954] : 2239–2247. [English summary.]

**1298.—Travassos Santos Dias,** J. A. Panorama noso-parasitologico veterinario em Moçambique. [Pathogenic protozoa]. An. Inst. Med. trop., Lisbon **11** 1954 : 605–634. [English summary.]

**1299.—Trégouboff,** G. Radiolaria (auctorum). In : Traité de Zoologie, Paris **1** (2) 1953 : 269–388 figs.

**1300.—Trégouboff,** G. Classe des Héliozoaires (Heliozoa Haeckel, 1866). In : Traité de Zoologie, Paris **1** (2) 1953 : 437–486 figs.

**1301.—Trembley,** H. L. & **Greenberg,** J. Further studies on the hybridization of strains of *Plasmodium gallinaceum*. J. Parasit. **40** 1954 : 475–479.

**Trembley,** H. L. *see* Greenberg, J.

**1302.—Trincão,** C., **Parreira,** F., **Franco,** A. & **Gouveia,** E. A cultura *in vitro* da medula ossea na doença do sono. An. Inst. Med. trop. Lisbon **9** (3) 1952 [1954] : 737–741 figs.

**1303.—Troelsen,** J. C. Glass needles used in dissection of Foraminifera. Micropaleontologist **8** (1) 1954 : 37.

**1304.—Troelsen,** J. C. Foram surgery. Micropaleontologist **8** (4) 1954 : 40–41.

**Troescher,** C. B. *see* Barber, F. W.

**Tromp,** S. W. *see* Popol, S. A.

**1305.—Tuffrau,** M. *Discotricha papillifera*, n. g., n. sp., cilié psammobie de la famille des Trichopelmidae. J. Protozool. **1** 1954 : 183–186 figs.

**Tuffrau,** M. *see* Fauré-Fremiet, E.

**1306.—Tumanskaya,** O. G. [On the representatives of *Pseudoyabeina* gen. nov. from the Upper Permian deposits]. Bull. Soc. Nat. Moscow, Geol. **29** (5) 1954 : 98.

**1307.—Turner,** H. J. jr. An improved method of staining organelles of hypotrichs. J. Protozool. **1** 1954 : 18–19.

**1308.—Tuzet,** O. & **Manier,** J. F. *Syncystis aeschnae* n. sp., Néogrégarine (=Schizogrégarine Léger, 1900) parasite des larves d'*Aeschna*. Ann. Sci. nat. (Zool.) (11) **15** 1953 : 241–246 figs.

**1309.—Tuzet,** O. & **Ormières,** R. Contribution à l'étude des grégarines des Thysanoures. 9: *Hyalospora roscoviana* Schneider 1875 et *Dinematospora grassei*, n.g., n. sp. Ann. Sci. nat. (Zool.) (11) **16** 1954 : 303–309 figs.

**1310.—Tuzet,** O. & **Rambier,** J. Recherches sur les Grégarines des Orthoptéroides. Ann. Sci. nat. (Zool.) (11) **15** 1953 : 247–250 figs.

**1311.—Tuzet,** O. & **Zuber-Vogeli,** M. Recherches sur les Opalines et les Ciliés parasites de Batraciens récoltés à Daloa (A.O.F.). Bull. Inst. Franç. Afr. noire **16A** 1954 : 822–828 figs.

**1312.—Uchino,** T. [On Tertiary foraminifera in the east of Toyama Prefecture]. J. geol. Soc. Japan **56** (656) 1950 : 275. [Abstract—in Japanese.]

**1313.—Ueda,** K. Electric stimulation of the stalk muscle of *Carchesium*. II. Zool. Mag. Tokyo **63** 1954 : 9–14 figs. [Japanese with English summary—14.]

**1314.—Ueda,** T. [On foraminifera in the Koetoi beds of Hokkaido]. J. geol. Soc. Japan **56** (656) 1950 : 274–5. [Abstract—in Japanese.]

**1315.—Ukeles,** R. Effect of pantothenate on growth of *Chilomonas* in the presence of propionate. Proc. Soc. Protozool. **4** 1953 : 19.

**1316.—Ukeles,** R. The effect of certain analogues of pantothenic acid on the growth of *Chilomonas paramecium*. J. Protozool. **1** Suppl. 1954 : 14.

**1317.—Unsworth,** K. Observations on antrycide-fast strains of *Trypanosoma congolense* and *T. vivax*. Ann. trop. Med. Parasit. **48** 1954 : 178–182.

**1318.—Uzmann,** J. R. & **Stickney,** A. P. *Trichodina myicola* n. sp., a peritrichous ciliate from the marine bivalve *Mya arenaria* L. J. Protozool. **1** (3) 1954 : 149–155 figs.

**Valentine,** J. C. *see* Pulvertaft, R. J. V.

**1319.—Vallmitjana,** L. & **Xalabarder,** C. Considereraciones sobre los apéndices vibrátiles y otras formaciones filamentosas de algunos protistos. Publ. Inst. Biol. apl. Barcelona **17** 1954 : 71–85 figs.

**1320.—Vasilenko,** V. P. & **Negadaev-Nikonov,** K. N. [The Lower Paleocene of the north-eastern edge of the Donbass]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R., N.S. **97** (4) 1954 : 719–721. [In Russian.]

**Vasina,** S. G. *see* Zasuchin, D. N.

**1321.—Vaucel,** M. & **Jonchère,** H. Observations made during the course of hybridization trials with different " species " of polymorphic trypanosomes. 5th Meet. Intern. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 126–129.

**1322.—Veljković-Zajec,** K. [Die palaeontologische Darstellung der Mikrofauna aus dem sarmatischen Sedimenten, von Vinča und der Umgebung]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953: 145–156 figs. [English summary : 157–8.]

**1323.—Veljković-Zajec,** K. [Neuer Beitrag zur Kenntnis der Mikrofauna aus dem II Mediteran in Višnjica]. [Foraminifera]. Zborn. Radova geol. Inst. Beograd **6** 1953 : 177–186 figs. [German summary : 186.]

**Veljković-Zajec,** K. *see* Tomić-Dzodzo, R.

**Vella,** P. *see* Hornibrook, N. de B.

**1324.—Vermeil,** C. Sur la conservation de toxoplasmes d'origine humaine inoculés au caméléon (*Chamaeleo vulgaris*). Bull. Soc. Sci. nat. Tunis. **6** 1954 : 79–81.

**Verolini,** F. *see* Corradetti, A.

**Vervent,** G. *see* Colas-Belcour, J.

**1325.—Viktorova,** R. E. & **Kovalevski,** S. A. [Aktchagil Formation in Moldavia]. [Foraminifera]. C.R. Acad. Sci. U.S.S.R. N.S. **94** (4) 1954 : 737–740. [In Russian.]

**1326.—Vincke,** I. H. Natural history of *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 245–256.

**1327.—Vincke,** I. H. Experimental transmission of *Plasmodium berghei*. Indian J. Malariol. **8** 1954 : 257–262.

**Vinh,** L. T. *see* Desmonts, G.

**1328.—Vinogradov,** M. E. [Vertical distribution of biomass of the zooplancton in Kuril-Kamtchatka depression]. [Radiolaria]. C.R. Acad. Sci. U.S.S.R., N.S. **96** (3) 1954 : 637–640 figs. [In Russian.]

**1329.—Vischer,** W. A. & **Suter,** E. Intracellular multiplication of *Toxoplasma gondii* in adult mammalian macrophages cultivated *in vitro*. Proc. Soc. exp. Biol. Med. **86** 1954 : 413–419 figs.

**Vlerk,** I. M. van der *see* Boschma, H.

**1330.—Vollbrechtshausen,** R. Vergleichende Untersuchungen über den Sabin-Feldman-Farbtest und die Toxoplasma - Komplementbindungs - reaktion nach Westphal in Tierversuchen. Z. Tropenmed. Parasit. **5** 1954 : 401–422. [English summary.]

**1331.—Volovik,** R. A. [Infection of *Aëdes aegypti* mosquitos from chickens infected with *Plasmodium gallinaceum* (Incubation period)]. Med. Parasitol., Moscow No. **4** 1954 : 360. [In Russian.]

**1332.—Voorthuysen,** J. H. van. News—Benelux. [Foraminifera]. Micropaleontologist **8** (4) 1954 : 7–10.

**Vũ-Cong-Hoe** *see* Brumpt, L. C.

**1333.—Wagner,** W. H., **Pedal,** H. W. & **Schöneberger,** A. Untersuchungen über das Wesen der erworbenen Resistenz von Trypanosomen gegenüber Phenylarsenoxyden. Z. Tropenmed. Parasit. **5** 1954 : 81–96. [English summary.]

**1334.—Waletzky, E., Neal, R. & Hable, I.** A field strain of *Eimeria tenella* resistant to sulfonamides. J. Parasit. **40** 1954 : Suppl. 24.

**1335.—Walker, G. W.** Sierra Blanca Limestone in Santa Barbara County, California. [Foraminifera]. Calif. Div. Mines. Dept. Nat. Res. Jour. Sp. Rept. **1-A** 1950 : 1–5.

**1336.—Walker, G. W.** The Calera Limestone in San Mateo and San Clara Counties, California. [Foraminifera]. Calif. Div. Mines. Dept. Nat. Res. Jour. Sp. Rept. **1-B** 1950 : 1–8.

**Wall, J. H.** *see* Stelck, C. R.

**Wallace, W. S.** *see* Hewitt, R. I.

**1337.—Walton, A. C.** Parasites of the Amphibia. Protozoa. J. Parasit. **40** 1954 : Suppl. 26–27.

**1338.—Wang, W. L. L.** Helminth ova and protozoan cysts in sewage and irrigation water. Univ. Colo. Stud. (Gen. Ser.) **29** (2) 1953 : 66–67.

**1339.—Wang, W. L. L. & Dunlop, S. G.** Animal parasites in sewage and irrigation water. Sewage & Indust. Wastes Champaign, Ill. **26** 1954 : 1020–1032.

**1340.—Wantland, W. W. & Johansen, E.** Effect of carbarsone, chiniofon and high protein diet on Trichomonads in the intestine of the Golden hamster. J. Parasit. **40** 1954 : 479–480.

**Warn, G. F.** *see* Sidwell, R.

**1341.—Warren, L. & Manwell, R. D.** Rate of glucose consumption by malarial blood. Exper. Parasit. **3** 1954 : 16–24 figs.

**1342.—Watkins, W. M. & Morgan, W. T. J.** Inactivation of the H receptors on human erythrocytes by an enzyme obtained from *Trichomonas foetus*. Brit. J. exp. Path. **35** 1954 : 181–190.

**1343.—Watson, H. J. C.** The maintenance of a strain of *Trypanosoma simiae* in rabbits. 5th Meet. Intern. Sci. Comm. Trypanos. Res., Bur. Perm. Interafr. Tsé-tsé & Trypanos., Leopoldville No. **206** 1954 : 161–162.

**1344.—Wawrik, F.** Ein neuer Choanoflagellat aus einem sauren Kleingewässer. Arch. Protistenk. **100** 1954 : 113–115 fig.

**1345.—Weathersby, A. B.** The ectopic development of malarial oocysts. Exper. Parasit. **3** 1954 : 538–543 figs.

**1346.—Weber, E.** Physiologische Untersuchungen an *Euglena olivacea*. S.B. öst. Akad. Wiss. Abt. I **160** (6–7) 1951 : 615–638.

**1347.—Wehr, E. E.** Blackhead of turkeys primarily transmitted through cecal worm eggs. J. Parasit. **40** 1954 : Suppl. 26.

**1348.—Weikl, A., Schwarz, R. & Mundt, W.** Die Diagnose der Trichomonadenseuche beim Bulle. Tierärztl. Umschau **8** 1953 : 193–196.

**Weinbach, E. C.** *see* Brand, T. von.

**1349.—Weinman, D. & Chandler, A. H.** Toxoplasmosis in swine and rodents. Reciprocal oral infection and potential human hazard. Proc. Soc. exp. Biol. Med. **87** 1954 : 211–216.

**1350.—Weis, D.** Observations on size reversibility in cultures of *Tetrahymena pyriformis*. J. Protozool. **1** Suppl. 1954 : 10.

**1351.—Weiser, J.** Parasites of the flour beetle, *Tribolium castaneum*. Proc. Soc. Protozool. **4** 1953 : 21.

**1352.—Weiser, J.** *Mattesia povolnyi* Weiser, a new parasite of *Homeosoma nebulellum* Hobn. Proc. Soc. Protozool. **4** 1953 : 21–22.

**1353.—Weiser, J.** On the question of the genera *Mattesia* and *Coelogregarina* (Schizogregarina). Proc. Soc. Protozool. **4** 1953 : 22.

**1354.—Weiser, J.** Schizogregarines of the flour pests. II. On the relations between *Mattesia dispora* Naville 1930 and *Coelogregarina ephestiae* Ghelelovitch 1947. Acta Soc. zool. Bohemoslov. **18** 1954 : 73–90 figs. [Czech with English summary.]

**1355.—Weiser, J.** Ein Beitrag zur Kenntnis der Parasiten des Borkenkäfers *Ips typographus*. [Sporozoa]. Acta Soc. zool. Bohemoslov. **18** 1954 : 217–224 figs. [Czech with German summary.]

**1356.—Weiser, J.** Zur systematischen Stellung der Schizogregarinen der Mehlmotte, *Ephestia kühniella* Z. Arch. Protistenk. **100** (1) 1954 : 127–142 figs.

**1357.—Weisz,** P. B. Morphogenesis in Protozoa. Quart. Rev. Biol. **29** 1954 : 207–229 fig.

**Weller,** T. H. *see* Chernin, E.

**1358.—Wellmann,** H. H. & **Brodie,** J. W. A note on the geology of the Cape Palliser, New Zealand (Sheet N. 168). [Foraminifera]. N.Z. J. Sci. Tech. **35B** (5) 1954 : 440–450 figs.

**1359.—Wellmann,** H. H., **Reed,** J. J., **Fleming,** C. A. & **Hornibrook,** N. de B. Marine Pliocene at Resolution Island, Ducky Sound, Fiordland (S 156). [Foraminifera]. N.Z. J. Sci. Tech. **35B** (5) 1954 : 378–389 figs.

**1360.—Wenrich,** D. H. The Society of Protozoologists and its new journal. J. Protozool. **1** (1) 1954 : 1–3.

**1361.—Wenrich,** D. H. Sex in Protozoa. A comparative review. Sex in Microorganisms. Wash. D.C. 1954 : 134–265 figs.

**1362.—Wenrich,** D. H. Comments on the origin and evolution of "sex". [Protozoa]. Sex in Microorganisms, Wash. D.C. 1954 : 335–346.

**1363.—Wenzel,** F. Die Ciliatenfauna der Cicadenschäume. Zool. Anz. **152** 1954 : 121–124.

**1364.—Werner,** H. Ueber die Frage der placentaren Trypanosomen-Infektionen und Uebertragung von Trypanosomen und Antikörpern durch die Milch auf das Neugeborene. Z. Tropenmed. Parasit. **5** 1954 : 422–442. [English summary.]

**Westfall,** J. A. *see* Metz, C. B.

**1365.—Westphal,** A. Toxoplasmoseforschung im Lichte der Malariaforschung. Riv. Parassit. **15** 1954 : 685–688.

**1366.—Westphal,** A. Zur Systematik von *Toxoplasma gondii*. Die Toxoplasmen als Trypanosomidae. Z. Tropenmed, Parasit. **5** 1954 : 145–182 figs. [English summary.]

**1367.—Westphal,** A. & **Palm,** G. Latente Toxoplasmainfektionen im Tierversuch als diagnostisches Hilfsmittel. II. Anwendung der Methode bei klinischen Fällen und Untersuchungen zum mikroskopischen Parasitennachweis. Z. Tropenmed. Parasit. **5** 1954 : 61–80 figs. [English summary.]

**1368.—Wetzel,** O. Übersicht über die im Feuerstein erhaltenen Protisten der baltischen Kreide. [Hystrichosphaeridae]. Paläont. Z. **27** (1–2) 1953 : 37–46 figs.

**1369.—Wetzel,** W. Beitrag zur Kenntnis des dan-zeitlichen Meeresplankton. [Hysterichosphaeridae]. Jb. Reichsst. Bodenforsch. **66** 1952: 391–418 figs.

**1370.—Wetzel,** W. Eine parasitäre Jura-Foraminifere. N. Jb. Geol. Paläont. B. **1** 1953 : 35–39 figs.

**1371.—Weynschenk,** R. A note on the Jurassic markers *Pseudocyclammina lituus* Yabe and Hanzawa and *Labyrinthina mirabilis* Weynschenk. Micropaleontologist **8** (3) 1954 : 47.

**Whitby,** J. L. *see* Brown, J. A. H.

**White,** E. *see* Hewitt, R. I.

**1372.—Wicher,** C. A. Beobachtungen im borealen Maastricht. [Foraminifera]. Paläont. Z. **27** (3–4) 1953 : 233–234 figs.

**1373.—Wichtermann,** R. The common occurrence of micronuclear variation during binary fission in an unusual race of *Paramecium caudatum*. J. Protozool. **1** 1954 : 54–59 figs.

**1374.—Wichterman,** R. & **Figge,** F. H. J. Lethality and the biological effects of X-rays in *Paramecium* : Radiation resistance and its variability. Biol. Bull., Woods Hole **106** 1954 : 253–263 figs.

**Wiese,** L. *see* Förster, H.

**1375.—Wilcox,** A., **Jeffery,** G. M. & **Young,** M. D. The Donaldson strain of malaria. II. Morphology of the erythrocytic parasites. Amer. J. trop. Med. Hyg. **3** 1954 : 638–649 figs.

**Wilcox,** A. *see* Jeffery, G. M.

**Wilde,** G. L. *see* Skinner, J. W.

**Wilkins,** J. H. *see* Crisp, J. D. G.

**1376.—Wilkins,** J. R. & **Henshaw,** C. T. The effect of endomycin and other antibiotics on *Trichomonas vaginalis in vitro*. Exper. Parasit. **3** 1954 : 417–424 fig.

**Wilkins,** M. H. F. *see* Davies, H. G.

**1377.—Wilks,** N. E. & **Sonnenberg,** B. Intestinal parasites in food handlers returned from Korea. [Incl. protozoa]. Amer. J. trop. Med. Hyg. **3** 1954 : 131–135.

**1378.—Williams,** E. G. The plankton organisms of the River Dee near Chester, 1951 and 1952. Proc. Chester Soc. nat. Sci. [5] 1954 : 114–120.

**1379.—Williams,** G. Fauna of Strangford Lough and neighbouring coasts. [Protozoa]. Proc. R. Irish Acad. **56B** (3) 1954 : 29–133 figs.

**Williams,** H. B. *see* Finley, H. E.

**Williams,** J. H. *see* Hewitt, R. I.

**1380.—Williamson,** J. (1) Selective interference with trypanocidal action. (2) Some metabolic reactions of normal and drug-resistant strains of *Trypanosoma rhodesiense*. Trans. R. Soc. trop. Med. Hyg. **48** 1954 : 1–3.

**Williamson,** J. *see* Garnham, P. C. C.

**1381.—Williamson,** P. B. Foraminifera from the Arcadia Park Section of the Eagle Ford Formation, Dallas County, Texas. Abstr. Thes. Sth. Meth. Univ. **14** 1953 : 78–79.

**1382.—Wingo,** W. J. & **Cameron,** L. E. Variations with age of culture in the ability of *Tetrahymena geleii* (Y) to oxidize and to " incorporate " methionine. Texas Rep. Biol. Med. **12** 1954 : 438–443.

**1383.—Wingo,** W. J. & **Lockingen,** L. S. Secondary growth in *Tetrahymena geleii* (Y.). Texas Rep. Biol. Med. **12** 1954 : 196–199 figs.

**1384.—Wirth,** E. Die Erdolvorkommen von Bruchsal in Baden. [Foraminifera]. Geol. Jahrb. **65** 1950 : 657–706 figs.

**1385.—Wirtschafter,** S. K. Attempts to grow *Endamoeba invadens* free of bacteria. Proc. Soc. Protozool. **4** 1953 : 14.

**1386.—Wirtschafter,** S. K. The maintenance of *Trichomonas vaginalis* on a solid medium. J. Parasit. **40** 1954 : 100.

**1387.—Wirtschafter,** S. K. Giant multinucleated cells in cultures of *Trichomonas vaginalis*. J. Parasit. **40** 1954 : 100–101.

**1388.—Wirtschafter,** S. K. Evidence for the existence of the enzymes hexokinase and aldolase in the Protozoan parasite *Trichomonas vaginalis*. J. Parasit. **40** 1954 : 360–362.

**1389.—Wise,** D. L. Carbon sources for *Polytomella caeca*. J. Protozool. **1** Suppl. 1954 : 6.

**1390.—Wohlburg,** W. Vergleichende stratigraphische Untersuchungen der brackisch-limnischen Ablagerungen Europas an der Wende Jura-Kreide. [Foraminifera]. Geol. Jahrb. **64** 1950 : 159–171 figs.

**1391.—Wohlfarth - Bottermann,** K. E. Cytologische Studien I. Zur sublichtmikroskopischen Struktur des Cytoplasmas und zum Nachweis seiner " Partikelpopulationen ". [Protozoa]. Protoplasma **43** (4) 1954 : 347–381 figs.

**1392.—Wohlfarth - Bottermann,** K. E. & **Krüger,** F. Protistenstudien VI. Die Feinstruktur der Axopodien und der Skelettnadeln von Heliozoen. Protoplasma **43** (3) 1954 : 177–191 figs.

**1393.—Wohlfarth - Bottermann,** K. E. & **Schwantes,** H. O. Protistenstudien II. Über den isoelektrischen Punkt von Trichocysten und Cilien. Z. naturf. **7b** (8) 1952 - 489–490.

**Wohlfarth-Bottermann,** K. E. *see* Krüger, F.

**Wohlfarth-Bottermann,** K. E. *see* Nemetschek, T.

**Wohlfeil,** M. *see* Leiner, M.

**1394.—Wolcott,** G. B. Nuclear structure and division in the malaria parasite, *Plasmodium vivax*. J. Morph. **94** 1954 : 353–365 figs.

**1395.—Wolcott,** G. B. The chromosomes of the four species of human malaria. J. Parasit. **40** 1954 : Suppl. 31.

**Wolfe,** P. A. *see* Phillips, B. P.

**1396.—Wood,** A. *Virgulina* and *Cassidella*. Micropaleontologist **8** (2) 1954 : 37.

**1397.—Wood,** E. J. F. Dinoflagellates in the Australian region. Austr. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs.

**1398.—Wood,** S. F. Environmental temperature as a factor in development of *Trypanosoma cruzi* in *Triatoma protracta*. Exper. Parasit. **3** 1954 : 227–233.

**1399.—Woodruff,** A. W. Tropical diseases in Britain. [Protozoal diseases]. Brit. med. J. I **1954** : 1030–1033.

**Worth,** C. B. *see* Mackie, T. T.

**Wright,** W. H. *see* Phillips, B. P.

**Xalabarder,** C. *see* Vallmitjana, L.

**1400.—Yamada,** T. & **Fujimoto,** H. Investigations on the fusuline limestone of Ibukiyama Shiga Prefecture] [Foraminifera]. J. geol. Soc. Japan **56** (656) 1950 : 292. [Abstract—in Japanese].

**1401.—Yamazi,** I. Plankton investigations in inlet waters along the coast of Japan. XIII. The plankton of Obama Bay on the Japan sea coast. Publ. Seto Mar. biol. Lab. **4** (1) 1954 : 103–114.

**1402.—Yamazi,** I. Plankton investigations in inlet waters along the coast of Japan. XIV. The plankton of Turuga Bay of the Japan sea coast. Publ. Seto Mar. biol. Lab. **4** (1) 1954 : 115–128.

**1403.—Yamazi,** I. Plankton investigations in inlet waters along the coast of Japan. XV. The plankton of Yosa-Naikai and Kumihama Bay, enclosed bays on the Japan sea coast. Publ. Seto Mar. biol. Lab. **4** (1) 1954 : 129–145.

**Yoeli,** M. *see* Zuckerman, A.

**Young,** M. D. *see* Jeffery, G. M.

**Young,** M. D. *see* Wilcox, A.

**Zasteřa,** M. *see* Havlik, O.

**1404.—Zasuchin,** D. N. & **Vasina,** S. G. [Toxoplasmosis. (Review)]. Zool. Zhurn., Moscow **33** 1954 : 1410–1419 figs. [In Russian.]

**1405.—Zawoiski,** E. J. A method for counting protozoa. Proc. Pa. Acad. Sci. **28** 1954 : 276–279.

**Zimmerman,** W. J. *see* Becker, E. R.

**1406.—Zinn,** D. J. Protozoa from Pekinese Island. J. Protozool. **1** 1954 : 71–73.

**Zuber-Vogeli,** M. *see* Tuzet, O.

**1407.—Zuckerman,** A. & **Yoeli,** M. Age and sex as factors influencing *Plasmodium berghei* infections in intact and splenectomized rats. J. inf. Dis. **94** 1954 : 225–236.

**1408.—Zwisler,** J. B. & **Lysenko,** M. G. The oxidative metabolism of *Trypanosoma lewisi* from salicylate treated infected white rats. J. Parasit. **40** 1954 : 531–535.

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*Etrumeus micropus*, (1) gall bladder (Sea of Japan) : *Leptotheca etrumei* sp. n. (Myxospor.) ; (2) testes (*ibid.*) : *Eimeria etrumei* sp. n. (Coccid.), DOGIEL 311.

[*Gobius* sp.], blood (Asiatic U.S.S.R.): *Haemogregarina cotti* sp. n. (Coccid.),BAUER 70.

*Gymnacanthus galeatus* etc., gall bladder (Sea of Japan) : *Myxidium japonicum* sp. n. (Myxospor.), DOGIEL 311.

*Hemitripterus villosus & Sticheopsis epallax*, gall bladder (Sea of Japan) : *Ceratomyxa spectabilis* sp. n. (Myxospor.), DOGIEL 311.

*Hexagrammus octogrammus*, gall bladder (Sea of Japan) : *Sphaeromyxa hexagrammi* sp. n. (Myxospor.), DOGIEL 311.

*Hypophthalmichthys molitrix*, gills (River Amur, Asia) : *Disparospora pawlowskii* gen. n., sp. n. (Myxospor.) ACHMEROV 16.

[*Lota lota*], kidneys (Asiatic U.S.S.R.) : *Caudomyxum nanum* gen. n., sp. n. (Myxospor.), BAUER 71.

*Oncorhynchus kisutch*, blood (U.S.A.) : *Cryptobia salmositica* Katz (Mastigoph.), DAVISON etc. 275.

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*Pelecus cultratus*, gills (Baltic coast) : *Trichodina hexamera* sp. n. (Cil. Peritr.), STEIN 1228.

*Petromyzon marinus*, gills (U.S.A.): presence of *Trichodina* (Cil.), GUILFORD 505.

*Pholidapus dybowskii*, gall bladder (Sea of Japan) : *Chloromyxum pholidapi* sp. n. (Myxospor.), DOGIEL 311.

[*Phoxinus* sp.], gills (Asiatic U.S.S.R.) : *Myxosoma phoxinacaea* sp. n. (Myxospor.), BAUER 70.

*Pneumatophorus japonicus*, liver (Sea of Japan) : *Eimeria pneumatophori* sp. n. (Coccid.), DOGIEL 311.

Salmonidae, skin scales (U.S.A.): *Myxosoma squamalis* sp. n. (Myxospor.), IVERSEN 633.

*Sardinella melanosticta*, gall bladder (Sea of Japan) : *Ceratomyxa truncata* sp. n., *C. filicornis* sp. n. (Myxospor.), DOGIEL 311.

*Sebastodes taczanowskii & Myoxocephalus*, gut (Sea of Japan) : *Eimeria evaginata* sp. n. (Coccid.), DOGIEL 311.

*Sphaeroides* spp., (1) gall bladder (Sea of Japan) : *Ceratomyxa diloba* sp. n., *Sphaerospora sphaerica* sp. n. (Myxospor.) ; (2) ectoparasitic (*ibid.*) *Trichodina spheroides* sp. n. (Cil. Peritr.), DOGIEL 311.

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†*Allomorphina trigona* Reuss ; status thereof, HOFKER **579.**

†*Ammoastuta caudriae* **sp. n.** (p. 37) Lower Tertiary, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

†*Ammobaculites albertensis* **sp. n.** (p. 18) Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs. ; †*A. cylindriformis* **sp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs. ; †*A.* (?) *pygmaeus* **sp. n.** (p. 58) Lower Carboniferous, Middle Urals, MALAKHOVA Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60 figs.

*Ammodiscus* Reuss 1862 ; emendation thereof, LOEBLICH & TAPPAN **775.**

†*Ammolagena silurica* **sp. n.** (p. 65) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Amphistegina bikiniensis* **sp. n.** (p. 563) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N, 1954 : 547–568 figs. ; †*A. lessonii* **var. n.** *conoides* (p. 65), *A. l.* **var. n.** *fijiensis* (p. 65) ; *A. l.* **var. n.** *melanesiensis* ; Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954 : 1–96 figs.

†*Amphitremoida* ? *pachytheca* **sp. n.** (p. 56) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*A. elegantoides* **sp. n.** (p. 34) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs. ; †*A. redmondi* **sp. n.** (p. 40) Cretaceous, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs. ; †*A. paramilacomplanata, planoventralis* **spp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R., N.S. **94** (6) 1954 : 1163–1165 figs.

*Anomalinoides mexicana* **sp. n.** (p. 539), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Archaeochitinia* **gen. n.** *gotlandica* **sp. n.** (genotype) ; *A. hyalina* **sp. n.** (p. 55) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Asterigerina indistincta, marshallana, tentoria* **spp. n.** (p. 562) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N 1954 : 547–568 figs.

†*Astrorhiza erratica* **sp. n.** (p. 52) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Austrotrillina striata* **sp. n.** (p. 555) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N 1954 : 547–568 figs.

†*Blastammina fenestrata* **sp. n.** (p. 61) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Bolivina marshallana* **sp. n.** (p. 558) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N 1954 : 547–568 figs. ; †*B. moguntiaca* **sp. n.** (p. 29), Aquitanian, Germany, BARTENSTEIN & HEINEMANN Senckenbergiana Leth. **35** (1–2) 1954 : 23–35 figs. ; †*B. vaceki* **subsp. n.** *glabra* (p. 17) Eocene, Bavaria, HAGN Contr. Cushman Fdn. **5** (1) 1954 : 14–20 figs. ; *B. lanceolata* **sp. n.** (p. 514), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Bolivinoides angulata* **sp. n.** (p. 155), Cretaceous ; *B. pustulata* **sp. n.** (p. 156), Cretaceous ; *B. compressa, praecursor* **spp. n.** (p. 156), Cretaceous; *B. curta* **sp. n.** (p. 158) Palaeocene ; all from Israel, REISS Contr. Cushman Fdn. **5** (4) 1954 : 154–164 figs. ; †*B. decorata* (Jones) **subsp. n.** *australis* (p. 71) Cretaceous, Australia, EDGELL Contr. Cushman Fdn. **5** (2) 1954 : 68–76 ; †*B. draco* **subsp. n.** *miliaris* (p. 604) ; *B. decorata* **subsp. n.** *gigantea* (p. 610), Cretaceous, Germany, HILTERMANN & KOCH Geol. Jahrb. **64** [1943–48] 1950 : 595–632 figs. ; †*Bolivinoides* : status thereof, HILTERMANN & KOCH **568**; systematics thereof, REISS **1071.**

†*Boultonia guadalupensis* **sp. n.** (p. 439) Permian, Texas, SKINNER & WILDE J. Paleont. **28** (4) 1954 : 434–444 figs.

†*Boultoniinae* **subfam. nov.** (p. 437) Permian SKINNER & WILDE J. Paleont. **28** (4) 1954 : 434–444 figs.

†*Bulbophragmium* Maync 1952 ; type species thereof, LOEBLICH & TAPPAN **777**; MAYNC **836.**

†*Bulimina thanetensis* **var. n.** *hengisti* (p. 188) Palaeocene, England, HAYNES Contr. Cushman Fdn. **5** (4) 1954 : 185–191 figs. ; †*B. vinifera* **sp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R., N.S. **94** (6) 1954 : 1163–1165 figs. ; †*B.* d'Orbigny ; type species thereof, HAYNES **546**; new definition thereof, HAYNES **545.**

†*Buliminella isabelleana* **sp. n.** (p. 33) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Bullopora negevensis* **sp. n.** (p. 838) Albian, Israel, AVNIMELECH, PARNESS & REISS J. Paleont. **28** (6) 1954 : 835–839 figs. ; †*B. parasitica* **sp. n.** (p. 38) Jurassic, Germany, WETZEL N. Jb. Geol. Paläont. B. **1** 1953 : 35–39 figs.

†*Calcarina delicata, rustica* **spp. n.** (p. 563), Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†Calcarinidae ; systematics thereof, KÜPPER **730.**

*Chitinosiphon* **gen. n.** (p. 53) *rufescens* **sp. n.** (p. 53), marine, Cuban coast, THALMANN & BERMUDEZ Contr. Cushman Fdn. **5** (2) 1954 : 53–54 fig.

†*Cibicides globosus, superbus* **spp. n.** (p. 34) Cretaceous, Argentine, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs. ; *C. protuberans* **sp. n.** (p. 542), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs. ; †*C. hedbergi* **sp. n.** (p. 40) Cretaceous, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

†*Citharina beisseli* **nom. n.** (p. 54) [for *Frondicularia angusta* Beissel 1891 (*non* Nilsson)] Cretaceous, Switzerland, HAGN Paleontographica **104-A** (1–3) 1953 : 1–119 figs.

†*Clavulinoides selectiva* **sp. n.** (p. 17) Cretaceous, Switzerland, HAGN Palaeontographica **104A** (1–3) 1953 : 1–119 figs.

†*Conorbella* Hofker 1951 ; status thereof, HORNIBROOK & VELLA **607.**

*Cornuspira incerta* (d'Orbigny) ; emendation thereof, LOEBLICH & TAPPAN **775.**

†*Cribroelphidium chaputi* **sp. n.** (p. 195) Quaternary, Lower Pyrenees, TINTANT Bull. sci. Bourgogne **14** 1954 : 185–208 figs.

†*Cribrohantkenina*; status thereof, BARNARD **63**.

†*Cristellaria akuschensis, avarica, chantiensis, daghestanica, elegans, elongata, muniensis, ovalis, pseudo-observabilis, pulchra, shustskii, subbotini, verica* **spp. n.** [all *nom. nud.*] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs.

†*Darbyellina* **gen. n.** *hempsteadensis* **sp. n.** (p. 207) (genotype) Palaeocene, Arkansas, HARRIS & SUTHERLAND Proc. Okla. Acad. Sci. **33** 1952 : 207–208 figs.

†*Dentalina sherborni* **sp. n.** (p. 145) Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs. ; †*D. astrae* **sp. n.** (p. 33) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Discopulvinulina* Hofker 1951 ; status thereof, HORNIBROOK & VALLEE **607**.

†*Discorbis laddi* **ssp. n.** (p. 57) Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954 : 1–96 figs. ; †*D. chapmani* **sp. n.** (p. 164), Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs. ; *D. bulbosa* **sp. n.** (p. 523), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs. ; †*D. luciferus* **sp. n.** (p. 34) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

*Discorinopsis vadescens* Cushman & Brönnimann 1948 ; status thereof, ARNOLD **35**.

†Ellipsoidinidae ; emendation thereof, PETTERS **989**.

†Ellipsoidininae **subfam. nov.** of Ellipsoidinidae, PETTERS **989**.

†*Elphidium mariae* **sp. n.** (p. 1048) [nom. nud.] Lower Miocene, Russia, DZHANELIDZE C.R. Acad. Sci. U.S.S.R., N.S. **95** (9) 1954 : 1047–1049 ; †*E. marshallana* **sp. n.** (p. 556) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†*Epistomina hoffmeisteri* **sp. n.** (p. 62) Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954 : 1–96 figs.

†*Eponides perspicax* **sp. n.** (p. 34) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Fallotella* **gen. n.** *alarensis* **sp. n.** (p. 209) Thanetian-Lutetian, Spain, MANGIN Bull. sci. Bourgogne **14** 1954 : 209–221 figs. ; †*Fallotella* ; systematic position thereof, MANGIN **807**.

*Fissurina siliciensis* **nom. nov.** (p. 384) [for *Fissurina* (*Fissurine*) *marginata* Seguenza 1862 (*non Fissurina marginatum* (Montagu) Loeblich & Tappan 1953, based on *Vermiculum marginatum* Montagu 1803] LOEBLICH & TAPPAN J. Wash. Acad. Sci. **44** (12) 1954 : 384.

†*Flabellammina bessboroensis* **sp. n.** (p. 19) ; *F. gleddiei, hendersonensis* **spp. n.** (p. 20) ; *F. succedens* **sp. n.** (p. 21), Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

†*Frondicularia superbissima* **sp. n.** (p. 33) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Fusulinella thompsoni* **sp. n.** (p. 797) ; *F. texana* **sp. n.** (p. 800) ; *F. haymondensis* **sp. n.** (p. 801) ; Permian, Texas, SKINNER & WILDE J. Paleont. **28** (6) 1954 : 796–803 figs.

†*Gallowaiinella wutuensis* **sp. n.** (p. 233) Permian, China, KUO Bull. geol. Soc. China **28** (3–4) 1949 : 233–234 fig.

†*Guadryina* (*Gaudryina*) *ashfordi* **sp. n.** (p. 167) Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs. ; †*G.* (*Pseudogaudryina*) *bettenstaedti* **sp. n.** (p. 15), *G.* (*P.*) *helvetica* **sp. n.** (p. 16) Cretaceous, Switzerland, HAGN Palaeontographica **104 A** (1–3) 1953 : 1–119 figs.

†*Gaudryinella schröderi* **sp. n.** (p. 15) Eocene, Bavaria, HAGN Contr. Cushman Fdn. **5** (1) 1954 : 14–20 figs.

†*Gavelinopsis* Hofker 1951 ; status thereof, HORNIBROOK & VELLA **607**.

†*Globigerina brodi, morozovi, muniensis* **spp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs. ; †*G. ciperoensis* **sp. n.** (p. 1) Oligocene

Trinidad, Bolli Contr. Cushman Fdn. **5** (1) 1954 : 1–3 figs. ; †*G. wilsoni* **subsp. n.** *bolivariana* (p. 39) Eocene, Columbia, Petters Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs. ; †*G. concinna* Reuss 1850 ; status thereof, Bolli **107.**

†*Globigerinoides subquadrata* **sp. n.** (p. 680) [authorship ascribed to Brönnimann only] ; *G. bispherica* **sp. n.** (p. 681) [authorship ascribed to Todd only] Upper Oligocene, Saipan, Todd & Brönnimann Amer. J. Sci. **253** (11) 1954 : 673–682 figs.

*Globobulimina mississippiensis* **sp. n.** (p. 511), Gulf of Mexico, Parker Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Globotruncana* (*Globotruncana*) *rosetta* **subsp. n.** *pembergeri* (p. 35) Maastrichtian, Central Europe, Papp & Küpper S. B. Öst. Akad. Wiss. Abt. I **162** (1–2) 1953 : 31–48 figs. ; †*Globotruncana* ; systematics thereof, Papp & Küpper **952.**

*Goësella mississippiensis* **sp. n.** (p. 495), Gulf of Mexico, Parker Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Gublerina hedbergi* Brönnimann & Brown 1953 ; a synonym of *G. acuta* var. *robusta* de Klasz 1953, Brönnimann & Brown **147.**

†*Gumbelina elongata* **sp. n.** [nom. nud.] Lower Cretaceous, Russia, Gorbunova & Saidova C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs.

†*Gumbelitria cretacea* **var. n.** *albertensis* (p. 23) Cretaceous, Canada, Stelck & Wall Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

†*Guttulina rivadaviaensis* **sp. n.** (p. 33) Cretaceous, Argentina, Camacho Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Gyroidina patagonica* **sp. n.** (p. 34) Cretaceous, Argentina, Camacho Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Gyroidinoides pseudosimiensis* **sp. n.** (p. 269) Cretaceous, Israel, Reiss Bull. Res. Counc. Israel **2** (3) 1953 : 269–270 figs.

†*Hantkenina* (*Aragonella*) *kutchensis* **sp. n.** (p. 27) (*nom. nud.*) Eocene, India, Tewari Proc. Indian Sci. Congr. **40** (3) 1953 : 26–27 ; †*H. alabamensis* Cushman ; status thereof, Barnard **63.**

†*Haplophragmella didona* **sp. n.** (p. 57) Lower Carboniferous, Middle Urals, Malakhova Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60, figs.

†*Haplophragmoides bonanzaense*, *diversitatum* **spp. n.** (p. 24) ; *H. hendersonense*, *howardense* **spp. n.** (p. 25) ; *H. howardense* **var. n.** *manifestum* (p. 26) ; *H. spiritense* **sp. n.** (p. 28) ; *H. tremblayense* **sp. n.** (p. 29) Cretaceous, Canada, Stelck & Wall Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

†*Hastigerinella columbiana* **sp. n.** (p. 40) Eocene, Columbia, Petters Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

†*Heterostegina costata* **subsp. n.** *costata* (p. 111), *H. granulatatesta* **sp. n.** (p. 116) Miocene, Central Europe, Papp & Küpper Anz. öst. Akad. Wiss. **89** 1953 : 110–118 figs. ; †*H. heterostegina* **subsp. n.** *praecostata* (p. 116), Miocene ; *H. costata* **subsp. n.** *levitesta* (p. 116), Miocene ; *H. costata* **subsp. n.** *politatesta* (p. 117) Miocene ; *H. costata* **subsp. n.** *carinata* (p. 117), Miocene ; *H. complanata* **subsp. n.** *spiralis* (p. 121) Neogene ; *H. complanata* **subsp. n.** *sculpturata* (p. 121) Miocene ; *H. granulatatesta* **subsp. n.** *praeformis* (p. 122) Helvetian ; *H. involutiformis* **sp. n.** (p. 124) Upper Burdigalian, Papp & Küpper Contr. Cushman Fdn. **5** (3) 1954 : 108–127 figs. ; †*Heterostegina* ; systematics thereof, Papp & Küpper **951, 956.**

†*Heterostomella bavarica* **sp. n.** (p. 18) Cretaceous, Switzerland, Hagn Palaeontographica **104-A** (1–3) 1953 : 1–119 figs.

†*Hyperammina baltica* **sp. n.** (p. 65) Lower Palaeozoic, Baltic region, Eisenack Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs. ; †*H. kentuckyensis* **sp. n.** (p. 166) Mississippian, Kentucky, Conkin Contr. Cushman Fdn. **5** (4) 1954 : 165–169 figs. ; †*H. moderata* **sp. n.** (p. 50) Lower Carboniferous, Middle Urals, Malakhova Bull. Soc. Nat. Moscow Geol. **29** (1) 1954 : 49–60 figs.

†*Hyperamminoides*; status thereof, CONKIN **234**.

*Involutina silicea* Terquem 1862; emendation thereof, LOEBLICH & TAPPAN **775**; *Involutina* Terquem 1862; new description thereof, LOEBLICH & TAPPAN **775**.

Involutininae; systematics thereof, LOEBLICH & TAPPAN **775**.

†*Lagena thathoae* **sp. n.** (p. 1048) [nom. nud.] Lower Miocene, Russia, DZHANELIDZE C.R. Acad. Sci. U.S.S.R., N.S. **95** (9) 1954: 1047–1049.

*Lagunculina*: some species referred to this genus are thecamoebians, BOLLI & SAUNDERS **108**.

†*Lenticulina ellisori* **sp. n.** (p. 146) Eocene, England, BOWEN Proc. Geol Assoc. Lond. **65** (2) 1954: 125–174 figs.; †*L. rivadaviaensis* **sp. n.** (p. 32) Upper Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954: 31–35 figs.; †*L. saxocretacea* **nom. nov.** (p. 46) Albian, Germany [*Cristellaria subalata* Berthelin 1880 (non Reuss 1863)], BARTENSTEIN Senckenbergiana Leth. **35** (1–2) 1954: 37–50 figs.

*Leptodermella*; some species referred to this genus are thecamoebians, BOLLI & SAUNDERS **108**.

†*Liebusella exigua* **sp. n.** (p. 554) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N 1954: 547–568 figs.

†*Linderina rajasthanensis, bikanerensis* **spp. n.** (p. 26) (*nomina nud.*) Eocene, India, SINGH Proc. Indian Sci. Congr. **40** (3) 1953: 26.

†Marginolamellidae Hofker 1951; status thereof, HOFKER **584**.

†*Marginulina enbornensis* **sp. n.** (p. 149) Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954: 125–174 figs.; †*M. delecta* **sp. n.** (p. 33) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954: 31–35 figs.

†*Massilina placida* **sp. n.** (p. 555) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N 1954: 547–568 figs.

†*Miliammina biobscura* **sp. n.** (p. 29) Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954: 1–38 figs.

*Millettella*; some species may be thecamoebians, BOLLI & SAUNDERS **108**.

†*Miogypsina irregularis* (Michelotti); new definition thereof, DROOGER **325**; †*M. negrii* (Ferrero); systematic position thereof, DROOGER **325**; †*M.* (*Miogypsina*) *socini* **sp. n.** (p. 233) Oligocene, Italy, DROOGER Proc. Acad. Sci. Amst. **57B** (2) 1954: 226–249 figs.

†*Mississippina dehmi* **sp. n.** (p. 19) Eocene, Bavaria, HAGN Contr. Cushman Fdn. **4** (1) 1954: 14–20 figs.

†*Navarella joaquini* **var. n.** *helvetica* (p. 141), Cretaceous, Switzerland, MAYNC Contr. Cushman Fdn. **5** (3) 1954: 138–144 figs.; †*Navarella* Ciry and Rat 1953; emendation thereof, MAYNC **835**.

†*Neoflabellina praerugosa, buticula, praereticulata* **spp. n.** (p. 53) Cretaceous, Germany, HILTERMANN Geol. Jahrb. **67** 1953: 47–66 figs.

†*Nodophthalmidium*; status thereof, CAROZZI **184**; †*Nodophthalmidium jurassicum* **sp. n.** (p. 86) Jurassic, Switzerland, CAROZZI Arch. Sci., Genève **6** (2) 1953: 85–89 fig.

†*Nodosaria subcanaliculata* (Neugeboren) **var. n.** *spinescens*, Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954: 125–174 figs.

†*Nonion hexacamerata* **sp. n.** (p. 1048), *N. roemeri* **var. n.** *sakardulensis* (p. 1048) [*nomina nuda*] Lower Miocene, Russia, DZHANELIDZE C.R. Acad. Sci. U.S.S.R., N.S. **95** (9) 1954: 1047–1049; †*N. pacificum* **var. n.** *lauensis* (p. 41) Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954: 1–96 figs.; †*N. paralium* **nom. nov.** (p. 188) [for *Nonionina depressula* Brady (*non* Walker & Jacob) 1884] TINTANT Bull. sci. Bourgogne **14** 1954: 185–208 figs.

†Nubeculariidae **fam. nov.** (p. 838); Nubeculinellinae **subfam. nov.** (p. 838); Nubeculariinae Cushman, emendation thereof; AVNIMELECH, PARNESS & REISS J. Paleont. **28** (6) 1954: 835–839 figs.

†*Nummulites* Lamarck 1801; gender thereof, HEMMING **553**.

†Nummulitidae; dimorphism thereof, NEMKOV **912**.

*Oolina borealis* **nom. nov.** (p. 384) [for *Entosolenia costata* Williamson 1858 (*non Oolina costata* Egger 1857)] Loeblich & Tappan J. Wash. Acad. Sci. **44** (12) 1954 : 384.

†*Operculina* ; systematics thereof, Papp & Küpper **951.**

†*Operculinella* ? *oneataensis* **sp. n.** (p. 50) Neogene, Fiji, Kleinpell Bull. Bishop Mus. **211** 1954 : 1–96 figs.

†*Orbitoides media* **subsp. n.** *megaloformis* (p. 74), *O. jaegeri* **sp. n.** (p. 75), Cretaceous, Central Europe, Papp & Küpper S. B. öst. Akad. Wiss. Abt. I **162** (1–2) 65–83 figs. ; †*Orbitoides* ; systematics thereof, Papp & Küpper **953.**

†*Ordovicina monostoma* **sp. n.** (p. 54) Lower Palaeozoic, Baltic region, Eisenack Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Palachemonella* **gen. n.** *torleyi* **sp. n.** (p. 266) (genotype) Devonian, Germany, Beckmann Geol. Jahrb. **67** 1953 : 259–272 figs.

†*Paraboultonia* **gen. n.** *splendens* **sp. n.** (p. 441) (genotype) Permian, Texas, Skinner & Wilde J. Paleont. **28** (4) 1954 : 434–444 figs.

†*Peneroplis honestus* **sp. n.** (p. 557) Tertiary, Bikini, Todd & Post U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†*Pernerina wicheri* **sp. n.** (p. 30) Cretaceous, Switzerland, Hagn Palaeontographica **104-A** (1–3) 1953 : 1–119 figs.

†*Pijpersia* **nom. nov.** (p. 153) [for *Ruttenia* Pijpers 1933 (*non* Rodhain 1924)] Thalmann Contr. Cushman Fdn. **5** (4) 1954 : 153.

†*Pileolina* Bermudez 1952 ; status thereof, Hornibrook & Vella **607.**

†*Planularia wichmanni, chubutensis, curviformis* **spp. n.** (p. 32) Cretaceous, Argentina, Camacho Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Planulina anglica* **sp. n.** (p. 133) Eocene, England, Bowen Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs. ; †*P. plana, planodorsa* **spp. n.** [nom. nud.] Lower Cretaceous, Russia, Gorbunova & Saidova C.R. Acad. Sci. U.S.S.R., N.S. **94** (6) 1954 : 1163–1165 figs.

†*Plectina pinswangensis* **sp. n.** (p. 26) Cretaceous, Switzerland, Hagn Palaeontographica **104-A** (1–3) 1953 : 1–119 figs.

†*Polydiexodina trompi* **sp. n.** (p. 389) Permian, Afghanistan [nom. nud.], Dunbar Proc. Acad. Sci. Amst. **57-B** (3) 1954 : 370–394.

†*Praeglobobulimina* ; new definition thereof, Haynes **545.**

†*Profusulinella plummeri* **sp. n.** (p. 796) Permian, Texas, Skinner & Wilde J. Paleont. **28** (6) 1954 : 796–803 figs.

†*Proteonina arrasensis* **sp. n.** (p. 30) ; *P.* ? *eurekaensis* **sp. n.** (p. 30), Cretaceous, Canada, Stelck & Wall Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs. ; *Proteonina* ; some species referred to this genus are thecamoebians, Bolli & Saunders **108.**

†*Psammosphaera rugosa* **sp. n.** (p. 58) Lower Palaeozoic, Baltic region, Eisenack Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Pseudoglandulina tumida* **sp. n.** (p. 157), Eocene, England, Bowen Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs.

†*Pseudorbitoides longispiralis* **sp. n.** (p. 352) Cretaceous, Central Europe, Papp & Küpper S.B. öst. Akad. Wiss. Abt. I. **162** (5) 1953 : 345–357 figs.

†*Pseudovalvulineria avnimelechi* **sp. n.** (p. 270) Danian-Palaeocene, Israel, Reiss Bull. Res. Counc. Israel **2** (3) 1953 : 269–270 figs.

†*Pseudoyabeina* **gen. n.** *lantschichensis* **sp. n.** (p. 98) (genotype) Upper Permian, Russia, Tumanskaya Bull. Soc. Nat. Moscow, Geol. **29** (5) 1954 : 98.

†*Quadratobuliminella* **gen. n.** *pyramidalis* **sp. n.** (p. 435) (genotype) Upper Cretaceous, Bavaria, Klasz N. Jb. Geol. Paläont. B. **10** 1953 : 434–436 fig.

†*Quasiendothyra urbana* **sp. n.** (p. 59) Lower Carboniferous, Middle Urals, Malakhova Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60 figs.

*Reophax irregularis* **sp. n.** (p. 483), Gulf of Mexico, Parker Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Rotalia canalis, floscula, tectoria* **spp. n.** (p. 561) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs. ; †*R. tuvuthaensis* **sp. n.** (p. 61) Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954 : 1–96 figs.

*Rotaliella* **gen. n.** *heterocaryoticv* **sp. n.** (p. 269), GRELL Arch. Protistenk. **100** (2) 1954 : 268–286 figs.

†*Rotorbinella* Bandy 1944 ; status thereof, HORNIBROOK & VALLEE **607.**

†*Saccammina suzini, zuramakensis* **spp. n.** (p. 119) Maikop formation, U.S.S.R., BOGDANOVICH C.R. Acad. Sci. Moscow, N.S. **98** (1) 1954 : 119–122 figs.

†*Schlosserina* **gen. n.** (p. 18) [genotype *Rosalina asterites* Gümbel 1868] Eocene, HAGN Contr. Cushm. Fdn. **5** (1) 1954 : 14–20 figs.

†*Schwagerina hindukushensis* **sp. n.** (p. 389) Permian, Afghanistan [nom. nud.], DUNBAR Proc. Acad. Sci. Amst. **57-B** (3) 1954 : 370–394 ; †*Schwagerina* Möller 1877 ; systematics and type species thereof, OPINION 213 **2.**

†*Sigmomorphina translucida* **sp. n.** (p. 33) Cretaceous, Argentina, CAMACHO Contr. Cushman Fdn. **5** (1) 1954 : 31–35 figs.

†*Simplorbitolina* **gen. n.** *manasi* **sp. n.** (p. 85) Cretaceous, Spain, CIRY & RAT Bull. sci. Bourgogne **14** 1954 : 85–100 figs.

†*Siphogenerinoides uhli* **sp. n.** (p. 38) Cretaceous, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

†*Sorosphaera geometrica* **sp. n.** (p. 61) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

†*Spiroplectammina guttula* **sp. n.** (p. 59) Lower Carboniferous, Middle Urals, MALAKHOVA Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60 figs. ; †*S. zigzag* **sp. n.** (p. 38) Oligocene, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs. ; †*S. terminalis* **sp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R., N.S. **94** (6) 1954 : 1163–1165 figs.

†*Spirulina ustjurtensis* **sp. n.** (p. 143) [nom. nud.] Tertiary, Russia, BOGDANOVITCH Bull. Acad. Sci. URSS., Geol. **2** 1954 : 143–144.

†*Stegnammina moremani* **sp. n.** (p. 63) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

*Stetsonia* **gen. n.** *minuta* **sp. n.** (p. 534), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Sulcorbitoides* **gen. n.** (p. 55) *pardoi* **sp. n.** (p. 56) (genotype) Cretaceous, Cuba, BRÖNNIMANN Contr. Cushman Fdn. **5** (2) 1954 : 55–61 figs.

†*Textularia andensis* **sp. n.** [nom. nud.] Lower Cretaceous, Russia, GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs. ; †*T. oveyi* **sp. n.** (p. 166), Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs. ; †*T. rollaensis* **sp. n.** (p. 30) Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

†*Thurammina asymmetrica* **sp. n.** (p. 64) Lower Palaeozoic, Baltic region, EISENACK Senckenbergiana Lethaea **35** (1–2) 1954 : 51–72 figs.

*Tinogullmia* **gen. n.** *hyalina* **sp. n.** (p. 36) (genotype) Gullmar Fjord, Sweden, NYHOLM Contr. Cushman Fdn. **5** (1) 1954 : 36 fig.

Tolypamminidae ; systematics thereof, LOEBLICH & TAPPAN **775.**

†*Tournayella questita* **sp. n.** (p. 54) ; *T. modesta* **sp. n.** (p. 55) ; *T.* (?) *moelleri* **sp. n.** (p. 55) ; Lower Carboniferous, Middle Urals, MALAKHOVA Bull. Soc. Nat. Moscow, Geol. **29** (1) 1954 : 49–60 figs.

†*Triloculina fusa* **sp. n.** (p. 555) Tertiary, Bikini, TODD & POST U.S. Geol Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†*Tritaxia spiritensis* **sp. n.** (p. 31) ; *T. s.* **var. n.** *elongata* (p. 32) ; Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

†*Trochammina kistatinawensis* **sp. n.** (p. 32); *T. latumbilicata, webbi* **spp. n.** (p. 33); Cretaceous, Canada, STELCK & WALL Rep. Res. Counc. Alberta **68** 1954 : 1–38 figs.

*Urnulina*; some species referred to this genus are thecamoebians, BOLLI & SAUNDERS **108.**

†*Uvigerina canariensis* **var. n.** *lakembaensis* (p. 54) Neogene, Fiji, KLEINPELL Bull. Bishop Mus. **211** 1954 : 1–96 figs.

†*Vaginulina muradensis* **sp. n.** [nom. nud.] Lower Cretaceous, Russia GORBUNOVA & SAIDOVA C.R. Acad. Sci. U.S.S.R. N.S. **94** (6) 1954 : 1163–1165 figs.

†*Valvulammina marshallana* **sp. n.** (p. 554) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†*Valvulina? prominens* **sp. n.** (p. 553) Tertiary, Bikini, TODD & POST U.S. Geol. Surv. Prof. Paper 260-N. 1954 : 547–568 figs.

†*Valvulineria barnardi* **sp. n.** (p. 165) Eocene, England, BOWEN Proc. Geol. Assoc. Lond. **65** (2) 1954 : 125–174 figs.; *V. mexicana* **sp. n.** (p. 526), *V. minuta* **sp. n.** (p. 527), Gulf of Mexico, PARKER Bull. Mus. comp. Zool. Harv. **111** 1954 : 451–588 figs.

†*Vaughanina barkeri* **sp. n.** (p. 103) Upper Cretaceous, Mexico, BRÖNNIMANN Contr. Cushman Fdn. **5** (3) 1954 : 91–105 figs.; †*Vaughanina*; systematic position thereof, BRÖNNIMANN **145.**

†*Virgulina miocenica* **sp. n.** (p. 1048) [nom. nud.] Lower Miocene, Russia, DZHANELIDZE C.R. Acad. Sci. U.S.S.R., N.S. **95** (9) 1954 : 1047–1049; †*Virgulina* d'Orbigny; relationship to *Cassidella* Hofker, WOOD **1396.**

†*Wheelerella* **gen. n.** (p. 38) *magdalenaensis* **sp. n.** (p. 39) (genotype) Cretaceous, Columbia, PETTERS Contr. Cushman Fdn. **5** (1) 1954 : 37–41 figs.

†Wheelerellinae **subfam. nov.** of Ellipsoidinidae, PETTERS **989.**

## (d) Heliozoa

Heliozoa : systematic account, TRÉGOUBOFF **1300.**

## (e) Radiolaria

Radiolaria : systematic account, TRÉGOUBOFF **1299.**

Radiolaria from Pacific Ocean, DOGIEL & REŠETNJAK **314.**

*Arachnocorys dubius* **sp. n.** (p. 19) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Castanidium inclinatum* **sp. n.** (p. 27) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Castanissa megastoma* **sp. n.** (p. 25) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Castanura primitiva* **sp. n.** (p. 25) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Conosphaera lamellispina* **sp. n.** (p. 6) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Dictyophimus elegans* **sp. n.** (p. 14) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Haeckeliana megalodonta* **sp. n.** (p. 28) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Heliosoma delicatulum* **sp. n.** (p. 7) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Lampromitra tricuspis* **sp. n.** (p. 13) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Lychnocanium vitiazi* **sp. n.** (p. 18) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Polypyramis* **gen. n.** (p. 29) *fenestrata* **sp. n.** (p. 30) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Protocystis vicina* **sp. n.** (p. 31), *P. ornithocephala* **sp. n.** (p. 32) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Pterocanium laeve* **sp. n.** (p. 18) from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Pterocorys diplotriaena* **sp. n.** (p. 15), *P. bicornis* **sp. n.** (p. 16), *P. schewiakowi* **sp. n.** (p. 17), *P. korotnevi* **sp. n.** (p. 17), from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Schizodiscus* **gen. n.** (p. 8) *disymmetricus* (p. 9), *spatangus* (p. 10), *stylotrochoides* (p. 11) **spp. n.** from Pacific Ocean, DOGIEL & REŠETNJAK Invest. Far-East. Seas of U.S.S.R. **3** 1952 : 5–36 figs.

*Sticholonche zanclea* ; affinities thereof, HOLLANDE & ENJUMET **590.**

## 2.—MASTIGOPHORA

### A. PHYTOMASTIGINA

### (a) Chrysomonadida

New but undescribed coccolithids, KAMPTNER **666.**

*Calcidiscus* **gen. n.** *quadriforatus* **sp. n.** (p. 235) (*nom. nud.*), KAMPTNER Mikroskopie **7** (7–8) 1952 : 232–237 figs. ; *C. medusoides* **sp. n.** (p. 26), KAMPTNER Arch. Protistenk. **100** (1) 1954 : 1–90 figs.

*Ceratolithus cristatus* **sp. n.** (p. 43), KAMPTNER Arch. Protistenk. **100** (1) 1954 : 1–90 figs.

*Cycloeoccolithus mirabilis* **comb. nov.** (p. 24), KAMPTNER Arch. Protistenk. **100** (1) 1954 : 1–90 figs.

*Helicosphaera carteri* **comb. nov.** (p. 21), KAMPTNER Arch. Protistenk. **100** (1) 1954 : 1–90 figs.

*Homozygosphaera ponticulifera* **comb. n.** (p. 18), KAMPTNER Arch. Protistenk. **100** (1) 1954 : 1–90 figs.

*Pontosphaera scutellum* **sp. n.** (p. 233) (*nom. nud.*), KAMPTNER Mikroskopie **7** (7–8) 1952 : 232–237 figs.

### (b) Cryptomonadida

[No record.]

### (c) Dinoflagellata

Dinoflagellates of Australasia, WOOD **1397.**

*Amallocystis boschmai* **sp. n.** (p. 57) on female adult of *Leptomysis gracilis* Sars (Mysidae), Mediterranean, NOUVEL Vie et Milieu **4** (1) 1954 : 57–58 fig.

*Dinophysis caudata* **var. n.** *abbreviata* (p. 4), *D. c.* **var. n.** *pedunculata* (p. 6) South America, BALECH Comun. zool. Mus. Montevideo **3** (60) 1951 : 1–9 figs.

*Gonyaulax monilata* **sp. n.** (p. 153) Florida coastal waters, HOWELL Trans. Amer. micr. Soc. **72** (2) 1953 : 153–156 figs. ; *G. polygramma* **subsp. n.** *pulchra* (p. 33), *G. spinifera* **subsp. n.** *estelae* (p. 34) [for *G. spinifera* (*pars*) Sousa & Silva 1949 (non Claparède et Lachmann)] Spanish coastal waters, MARGALEF & DURÁN Publ. Inst. Biol. apl. Barcelona **13** 1953 : 5–78 figs. ; *G. borealis* **sp. n.** (p. 53) Lofoten, NORDLI Nytt Mag. Naturv. **88** 1951 : 49–55 figs. ; *G. conjuncta* **sp. n.** (p. 258), coast of N.S. Wales, WOOD Aust. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs.

*Gymnodinium maximum* **nom. prov.** (p, 51) Lofoten, NORDLI Nytt Mag. Naturv. **88** 1951 : 49–55 figs.

*Ornithocercus biclavatus* **sp. n.** (p. 350), ; *O. triclavatus* **sp. n.** (p. 210), coast of E. Australia, WOOD Aust. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs.

*Peridinium ampulliforme* **sp. n.** (p. 242) estuarine, N.S. Wales ; *P. obovatum* **sp. n.** (p. 242) marine, Antarctic, WOOD Aust. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs.

*Phalacroma braarudi* **sp. n.** (p. 50) Lofoten, NORDLI Nytt Mag. Naturv. **88** 1951 : 49–55 figs. ; *P. alata, jibbonense, thompsonii* **spp. n.** (p. 192); marine, coast of N.S. Wales, WOOD Aust. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs. ; *P. mawsonii* **sp. n.** (p. 187) Antarctic region ; *P. triangulare* **sp. n.** (p. 187) East Australian coast ; *P. whiteleggei* **sp. n.** (p. 189) coast of N.S. Wales ; marine, WOOD Aust. J. mar. freshw. Res. **5** (2) 1954 : 171–351 figs.

*Solenodinium leptotaenia* **sp. n.** (p. 427), *S. densum* **sp. n.** ( p. 427) parasitic in Radiolaria, *Thalassicolla* spp., HOVASSE & BROWN Ann. Sci.

nat., Zool. (11 ser.) **15** 1953 : 405–438 figs.

## (d) Euglenoidida

New saltwater Euglenids, Pringsheim **1024.**

*Euglena viridis* **var. n.** *maritima* (p. 156), *E. v.* **var. n.** *halophila* (p. 157), *E. deses* **var. n.** *carterae* (p. 158), *E. proxima* **var. n.** *dangeardii* (p. 159), *E. p.* **var. n.** *anglesia* (p. 160), saltwater, British coastal waters, Pringsheim Arch. Mikrobiol. **18** (2) 1953 : 149–164 figs.

*Eutreptia pertyi* **sp. n.** (p. 152), saltwater, British coastal waters, Pringsheim Arch. Mikrobiol. **18** (2) 1953 : 149–164 figs.

*Protoeuglena* **gen. n.** *noctilucae* **sp. n.** (p. 123), in *Noctiluca miliaris* Suriray, Calicut coast, India, Subrahmanyan Proc. Indian Acad. Sci. **39B** (3) 1954 : 118–127 figs.

## (e) Phytomonadida

[No record].

B. ZOOMASTIGINA.

## (f) Protomonadida

*Bodo insidiosus* **sp. n.** (p. 173), Hollande & Enjumet Ann. Sci. nat. (Zool.) (11) **15** 1953 : 99–183 figs.

*Crithidia* : discussion on taxonomy of the genus, Ketterer **684**; *Crithidia erythisinarum* [**sp. n.** (originally described in Japanese : Dojinkai Igaku Zasshi **16** 1942), re-description in English]. Morisita Jap. J. med. Sci. Biol. **7** 1954 : 135–137 figs.

*Lagenoeca ruttneri* **sp. n.** (p. 462) free, planktonic, freshwater, Austrian Alps, Bourrelly Schweiz. Z. Hydrol. **14** (2) 1952 : 462–464 figs.

*Leishmania tropica brasiliensis, L. t. mexicana, L. t. guyanensis* **subspp. n.** for different forms of cutaneous leishmaniasis in New World, Floch Arch. Inst. Pasteur Guyane Franç. No. **328** 1954 : sep. pag. ; Bull. Soc. Path. exot. **47** 1954 : 784–787.

*Leptomonas cenaei* **sp. n.** (p. 249) from S. African plant-bug, *Cenaeus*, Gibbs Trans. R. Soc. S. Afr. **34** 1954 : 245–249 figs,

*Retortamonas kirbyi* **sp. n.** (p. 478) from American marmot, Gabel J. Morph. **94** 1954 : 473–550 figs.

*Salpingoeca schilleri* **sp. n.** (p. 114) from Austria, Wawrik Arch. Protistenk. **100** 1954 : 113–115 figs.

*Toxoplasma* regarded as an aberrant Trypanosomid flagellate, Westphal **1366.**

*Trypanosoma ambystomae* **sp. n.** (p. 656) from American salamander, Lehmann J. Parasit. **40** 1954 : 656–659 figs. ; *T. congolense* **var. n.** *urundiense* (p. 307) affecting pigs in Belgian Congo, Peel & Chardome Ann. Soc. Belge Méd. trop. **34** 1954 : 303–309 figs. ; *T. congolense* **var. n.** *berghei* (p. 318) from pigs in Belgian Congo, Chardome & Peel *Ibid.* : 311–320 figs. ; *T. congolense* **var. n.** *mossoense* (p. 321) from pigs of Belgian Congo, Peel & Chardome *Ibid.* : 321–343 figs. ; *Trypanosoma cruzi* : taxonomy, Manso Soto & Prosen **809**; nomenclature and relation to *lewisi*-group, Pérez-Reyes **983.**

*Trypanosoma rangeli* : structure, affinities and life history, Pifano **997**; *T. rangeli* and related spp. in America, Floch & Fauran **409, 410.**

*Trypanosoma suis* Ochmann, 1905: its rediscovery in Belgian Congo and validation of species, with description of structure and life-cycle, Peel & Chardome **972**; Hoare **574.**

## (g) Trichomonadida

*Eutrichomastix santosi* **sp. n.** (p. 55) from Brazilian termite, Mello Pap. Dep. Zool. Sec. Agric., S. Paulo **11** 1954 : 49–56 figs.

*Monocercomonoides robustus* **sp. n.** (p. 491) from American marmot, Gabel J. Morph. **94** 1954 : 473–550 figs.

*Paratrichomonas* **gen. n.** *marmotae* **sp. n.** (p. 498) from American marmot, Gabel J. Morph. **94** 1954 : 473–550 figs. ; *P. ulmeri* **sp. n.** (p. 263) from American marmot, Gabel J. Tenn. Acad. Sci. **29** 1954 : 260–265 figs.

*Tetratrichomonas* : list of spp. recorded from termites, with differential characters, host-distribution, etc., Mello **846.**

*Trichomonas aulacodi* **sp. n.** (p. 445) from beetle, France, HOLLANDE & ENJUMET Ann. Sci. nat. (Zool.) (11) **15** 1953 : 439–447 figs. ; *T. enteris* **sp. n.** (p. 372) from cattle, Germany ; with differential diagnosis of other bovine spp., CHRISTL Z. Parasitenk. **16** 1954 : 363–372 figs. ; *T. gallinae* : revision with discussion of nomenclature, STABLER **1221.**

## (h) Hypermastigida

*Holomastigotoides oswaldoi* **sp. n.** (p. 34), *H. hemigymnum* **ff. n.** *nuda*, *stereociliata* (p. 38) from Brazilian termites, MELLO Mem. Inst. O. Cruz **52** 1954 : 17–51 figs.

*Pseudotrichonympha paulistana* **sp. n.** (p. 25) from Brazilian termitos, MELLO Mem. Inst. O. Cruz. **52** 1954 : 17–51 figs. ; *P. sertaneja* **sp. n.** (p. 28) from Brazilian termites, MELLO Parasitology **44** 1954 : 24–29 figs.

## (i) Diplomonadida

*Giardia* **sp.** [n.?] reported from golden hamster, LAMY & MOSSION **735.**

## (j) Polymonadida

*Hexamastix batrachorum* (Alexeieff): revision of taxonomy, host-range. morphology, HONIGBERG & CHRISTIAN **604.**

*Oxymonas hirtelli* **sp. n.** (p. 258) from Brazilian termites, *Neotermes*, MELLO An. Inst. Med. trop., Lisbon **10** (2) 1953 [1954] : 251–260 figs.

*Snyderella ypiranga* **sp. n.** (p. 77) from Brazilian termite *Rugitermes rugosus*, MELLO Rev. Brasil. Biol. **14** 1954 : 71–78 figs.

*Stephanonympha campinae* **sp. n.** (p. 32) from Brazilian termites, MELLO Parasitology **44** 1954 : 30–33 figs.

*Tricercomitus* (*Opisthomitus*) *brasiliensis* **sp. n.** (p. 357) from Brazilian termites, *Cryptotermes*, MELLO An. Inst. Med. trop., Lisbon **11** 1954 : 339–360 figs.

### 3.—SPOROZOA

### A. COCCIDIOMORPHA

## (a) Gregarinida

Gregarines : systematic account, GRASSÉ **476.**

*Cephaloidophora chthamallicola* **sp. n.** (p. 48) from crustacean of Sea of Japan, BOGOLEPOVA Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

Cnemidosporidae **fam. n.** (p. 646), GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

*Coelogregarina ephestiae* Ghelelovitch, 1947, compared with *Mattesia dispora* Naville, 1930, and regarded as synonym of latter, WEISER **1353, 1354.**

*Cygnicollum* **gen. n.** *attenuatum* **sp. n.** (p. 47) from polychaete of Sea of Japan, BOGOLEPOVA Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

*Dinematospora* **gen. n.** *grassei* **sp. n.** (p. 309) from Thysanuran insect, France, TUZET & ORMIÈRES Ann. Sci. nat. (Zool.) (11) **16** 1954 : 303–309 figs.

Dinematosporidae **fam. n.** (p. 309) for *Dinematospora* (*q.v.*), TUZET & ORMIÈRES Ann. Sci. nat. (Zool.) (11) **16** 1954 : 303–309.

*Diplocystis metselaari* **sp. n.** (p. 275), *D. johnsoni* **sp. n.** (p. 275) from *Anopheles* spp., THIEL J. Parasit. **40** 1954 : 271–279 figs.

*Farinocystis tribolii* **sp. n.** (p. 21) from flour beetle, Czechoslovakia, WEISER Proc. Soc. Protozool. **4** 1953 : 21.

*Gregarina diabrotica* Watson Kamm, 1918, identical with and synonym of *G. munieri* Schneider, 1876, THÉODORIDÈS **1266**; *G. delmasi* **sp. n.** (p. 248), *G. rigida* **var. n.** (p. 249) *ephippigeridae* from Orthoptera, France, TUZET & RAMBIER Ann. Sci. nat. (Zool.) (11) **15** 1953 : 247–250 figs.

Hirmocystidae **fam. n.** (p. 649), GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

*Hoplorhynchus bouruiensis* **sp. n.** (p. 278) from Japanese Myriapod, HUKUI Zool. Mag., Tokyo **61** 1951 : 278–280 fig.

*Lankesteria tethyi* **sp. n.** (p. 38) from sponges of Sea of Japan, BOGOLEPOVA Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

*Lecudina pyriformis* **sp. n.** (p. 44), *L. euphrosynes* **sp. n.** (p. 45), *L. arrhyncha* **sp. n.** (p. 45) from polychaetes of Sea of Japan, Bogolepova Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

*Leidyana leidyi* Watson Kamm, 1917, transferred to gen. *Cystocephalus*, Théodoridès **1265.**

Lipotrophidae **fam. n.** (p. 672), Grassé Traité de Zool. **1** (2) 1953 : 545–797.

*Mattesia* Naville, 1930 : revised diagnosis of genus, Weiser **1354;** systematic position, Weiser **1356.**

*Nematopsis lamellaris* **sp. n.** (p. 50), *N. dorippe* **sp. n.** (p. 49) from crustaceans of Sea of Japan, Bogolepova Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

Neogregarina **ordo n.** (p. 665) (=Schizogregarina Léger, 1900 *p.p.*), Grassé Traité de Zool. **1** (2) 1953 : 545–797.

*Nina japonica* **sp. n.** (p. 197) from Japanese *Scolopendra*, Hoside Zool. Mag., Tokyo **61** 1952 : 195–200 figs.

*Paragonospora* **gen. n.** *typica* **sp. n.** (p. 441) from polychaete, Sweden, Lang Ark. Zool., Stockholm **6** 1954 : 441–442 figs.

*Polyrhabdina cirratuli* **sp. n.** (p. 46), *P. nereicola* **sp. n.** (p. 46) from polychaetes of Sea of Japan, Bogolepova Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

*Selenidium curvicollum* **sp. n.** (p. 52), *S. flabelligerae* **sp. n.** (p. 52), *S. orientale* **sp. n.** (p. 51) from worms of Sea of Japan, Bogolepova Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

Syncystidae **fam. n.** (p. 672), Grassé Traité de Zool. **1** (2) 1953 : 545–797.

*Syncystis aeschnae* **sp. n.** (p. 241) from larvae of dragonfly, France, Tuzet & Manier Ann. Sci. nat. (Zool.) (11) **15** 1953 : 241–246 figs.

*Tricystis* **gen. n.** *planctonis* **sp. n.** (p. 14) from Chaetognatous worm, Hamon Bull. Soc. Hist. nat. Afr. N. **42** 1951 : 11–14 figs.

Uradiophoridae **fam. n.** (p. 638), Grassé Traité de Zool. **1** (2) 1953 : 545–797.

*Urospora pulmonalis* **sp. n.** (p. 39), *U. intestinalis* **sp. n.** (p. 40) from *Cucumaria* of Sea of Japan, Bogolepova Trav. Inst. Zool. Acad. Sci. URSS. **13** 1953 : 38–56 figs.

## (b) Coccidiida

Dorisiellidae **fam. n.** (p. 784) for *Dorisiella*, Grassé Traité de Zool. **1** (2) 1953 : 545–797.

*Eimeria vinckei* **sp. n.** (p. 329) from African rodent, *Thamnomys*, Rodhain Ann. Parasit. hum. comp. **29** 1954 : 327–329 figs. ; *E. brantae* **sp. n.** (p. 699), *E. brinkmanni* **sp. n.** (p. 703), *E. fanthami* **sp. n.** (p. 704) from N. American birds, Levine Amer. Midl. Nat. **49** 1953 : 696–719 figs. ; *E. etrumei* **sp. n.** (p. 41), *E. citriformis* **sp. n.** (p. 41), *E. evaginata* **sp. n.** (p. 42), *E. auxidis* **sp. n.** (p. 42), *E. pneumatophori* **sp. n.** (p. 43), *E. sphaerica* **sp. n.** (p. 43) from Sea of Japan fishes, Dogiel Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs. ; *E. bombayansis* **sp. n.** (p. 25), *E. khurodensis* **sp. n.** (p. 26) from Indian cattle, with list of bovine spp. of *Eimeria*, Rao & Hiregaudar Bombay Vet. Coll. Mag. **4** 1953–1954 : 24–28 ; *E. subrotunda* **sp. n.** (p. 12) from turkeys, U.S.A., Moore, Brown & Carter Proc. Soc. Protozool. **4** 1953 : 12–13 ; Poultry Sci. **33** 1954 : 925–929 figs. ; *E. dendrohyracis* **sp. n.** (p. 292) from hyrax, Berghe & Chardome Rev. Zool. Bot. Afr. **48** 1953 : 292–293 fig.

*Eucoccidium* **gen. n.** *dinophili* **sp. n.** (p. 227) from archiannelid, Grell Naturwissenschaften **40** 1953: 227.

*Haemogregarina* [sp. n.? (not named)] from American sea trout, Saunders J. Parasit. **40** 1954 : 699–700 fig. ; *H. cotti* **sp. n.** (p. 106) from Siberian goby, Bauer Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 97–156 figs.

*Hepatozoon argantis* **sp. n.** (p. 434) from tick *Argas brumpti*, Kenya, Garnham Riv. Parassit. **15** 1954 : 425–435 figs.

Holoeimeriidea **ordo n.** (p. 762) [= Eimeriidae *auctorum*], GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

*Isospora* spp. of man : taxonomy and nomenclature, ELSDON-DEW **360**; *Isospora gallinae* **sp. n.** (p. 106) from fowl, Germany ; with description of other avian spp. of *Isospora*, SCHOLTYSECK Arch. Protistenk, **100** 1954 : 91–112 figs. ; *I. garnhami* **sp. n.** (p. 410), *I. hoarei* **sp. n.** (p. 412) from mongoose, *Helogale undulata*, Kenya, BRAY Ann. trop. Med. Parasit. **48** 1954 : 405–415 figs.

Mantonellidae **fam. n.** (p. 765) for *Mantonella*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797 figs.

Merocystidae **fam. n.** (p. 793) for *Merocystis*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

Myriosporidae **fam. n.** (p. 791) for *Myriospora*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

Pfeifferinellidae **fam. n.** (p. 766) for *Pfeifferinella*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797 figs.

Pseudoklossiidae **fam. n.** (p. 789), for *Pseudoklossia*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

Schellackiidae **fam. n.** (p. 766) for *Schellackia* and *Tyzzeria*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

Wenyonellidae **fam. n.** (p. 784) for *Wenyonella*, GRASSÉ Traité de Zool. **1** (2) 1953 : 545–797.

## (c) Haemosporidia

Haemosporidia : classification and nomenclature, ADLER **18.**

Haemosporidia : systematic account, POISSON **1008.**

Babesioidea **superfam. n.** (p. 935) for piroplasms, POISSON Traité de Zool. **1** (2) 1953 : 935–975.

*Leucocytozoon marchouxi* Mathis & Leger 1910 : revision, LEVINE **761.**

*Piroplasma* with subgenn, *Piroplasma* and *Babesiella* : nomenclature, status and specific composition, SERGENT etc. **1163**; *Piroplasma* Patton, 1895 : suggested priority of genus and its position among Piroplasmidae, with synonymy, TRAVASSOS SANTOS DIAS **1297.**

Piroplasms : classification and synonymy, TRAVASSOS SANTOS DIAS **1297.**

*Plasmodium ovale* (" Donaldson ") strain from Pacific area : its morphology, development and course of infection in man, JEFFERY **653**; JEFFERY, YOUNG & WILCOX **657**; WILCOX, JEFFERY & YOUNG **1375**; JEFFERY & YOUNG **656**; *P. knowlesi* : isolation of a new strain, JASWANT SINGH, RAY & NAIR **652**; *P. falciparum* and *P. malariae* : validation of nomenclature, its history and synonymy, OPINION 283 **4**; *P. reichenowi*, *P. rodhaini* and *P. schwetzi* of chimpanzees regarded as identical with the human parasites, *P. vivax*, *P. malariae* and *P. falciparum*, LEFROU & MARTIGNOLES **752.**

*Theileria* (= *Piroplasma*) *annulatum* Dschunkowsky & Luhs [1906] : history and status of the species, with synonymy, OPINION 266 **3.**

### B. CNIDOSPORIDIA

Cnidosporidia : systematic account POISSON **1011.**

## (d) Myxosporidia

*Caudomyxum nanum* **gen. n., sp. n.** (p. 158) from Siberian burbot, BAUER Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 157–174 figs.

*Ceratomyxa opisthocentri* **sp. n.** (p. 20), *C. truncata* **subsp. n.** *orientalis* (p. 20), *C. filicornis* **sp. n.** (p. 21), *C. porrecta* **sp. n.** (p. 22), *C. diloba* **sp. n.** (p. 22), *C. spectabilis* **sp. n.** (p. 25) from fishes of Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Chloromyxum pholidapi* **sp. n.** (p. 26) from fish *Pholidapus dybowskii*, Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs. ; *C. coregoni* **sp. n.** (p. 100) from fish *Coregonus*, Siberia, BAUER Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 97–156 figs.

*Disparospora* **gen. n.** (p. 1101) *pawlowskii* **sp. n.** (p. 1102) from Siberian fish, *Hypophthalmichthys*, ACHMEROV C.R. Acad. Sci. URSS. **97** (6) 1954 : 1101–1103 figs.

*Henneguya* **sp. n.** (p. 13 : not named) in North Atlantic Weakfish, *Cynoscion regalis* : JAKOWSKA, NIGRELLI & ALPERIN J. Protozool. **1** Suppl. 1954 : 13.

*Leptotheca etrumei* **sp. n.** (p. 20) from fish *Etrumeus micropus*, Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Myxidium japonicum* **sp. n.** (p. 28) from fishes of Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Myxobolus marinus* **sp. n.** (p. 31) from fish of Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Myxosoma phoxinacaea* **sp. n.** (p. 101) from Siberian fish *Phoxinus*, BAUER Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 97–156 figs. ; *M. squamalis* **sp. n.** (p. 400) parasitic on Salmonid fishes, U.S.A., IVERSEN J. Parasit. **40** 1954 : 397–404 figs.

*Sphaeromyxa elegini* **sp. n.** (p. 29), *S. cottidarum* **sp. n.** (p. 29), *S. hexagrammi* **sp. n.** (p. 30), *S. parva* **sp. n.** (p. 30) from Sea of Japan fishes, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Sphaerospora sphaerica* **sp. n.** (p. 26) from fish, *Sphaeroides pardalis*, Sea of Japan. DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

## (e) Microsporidia

Cougourdellidae **fam. n.** (p. 1069), POISSON Traité de Zool. **1** (2) 1953 : 1006–1088.

*Nosema whitei* **sp. n.** (p. 21) from flour beetle, Czechoslovakia, WEISER Proc. Soc. Protozool. **4** 1953 : 21.

## (f) Actinomyxidia

*Siedleckia* **gen. n.** *silesica* **sp. n.** (p. 49) from gut of *Tubifex*, Poland, JANISZEWSKA Zool. Polon. **6** 1953 : 49–56 figs.

Synactinomyxidae **fam. n.** (p. 1078), POISSON Traité de Zool. **1** (2) 1953 : 1006–1088.

Tetractinomyxidae **fam. n.** (p. 1078) for *Tetractinomyxon*, POISSON Traité de Zool. **1** (2) 1953 : 1006–1088.

## (g) Sarcosporidia

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## (h) Haplosporidia

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*Dermosporidium multigranulare* **sp. n.** (p. 93) from skin of frog, Czechoslovakia, BROŽ & KULDA Acta Soc. zool. Bohemoslov. **18** 1954 : 91–97 figs. ; *D. percae* Reichenbach-Klinke, 1950 [cf. vol. **87**, Sect. 2, 1950 : **936**] has priority over *D. percae* Scheer, 1952 [cf. vol. **90**, Sect. 2, 1953 : **1126**], REICHENBACH-KLINKE **1068.**

*Haplosporidium periplanetae* **sp. n.** (p. 68) from cockroach, GEORGEVITCH Bull. Acad. Serbe Sci. math. nat. N.S. **12** 1953 : 98–103 figs. ; *H. typographi* **sp. n.** (p. 222) from beetle *Ips typographus*, Czechoslovakia, WEISER Acta Soc. zool. Bohemoslov. **18** 1954 : 217–224 figs.

### Sporozoa incertae sedis

*Toxoplasma* regarded as an aberrant Trypanosomid flagellate, WESTPHAL **1366.**

*Toxoplasma* : suggested affinities with fungi, MANWELL & DROBECK **812.**

## 4.—CILIOPHORA

### A. OPALINATA

*Cepedea daloalensis* **sp. n.** (p. 826), *C. africana* **sp. n.** (p. 827) from West African Amphibia, TUZET & ZUBER-VOGELI Bull. Inst. Franç. Afr. noire **16A** 1954 : 822–828 figs.

*Protoopalina daloalensis* **sp. n.** (p. 824) from W. African frog, TUZET & ZUBER-VOGELI Bull. Inst. Franç. Afr. noire **16A** 1954 : 822–828 figs.

B. CILIATA

## (a) Holotrichida

Holotrichids from Czechoslovakia, ŠRÁMEK-HUŠEK **1220.**

*Anoplophrya oblonga* **sp. n.** (p. 207), in digestive tube of *Lumbricus herculeus*; *A. commune* **sp. n.** (p. 207), in digestive tube of *Allolobophora savignyi*; *A. singularis* **sp. n.** (p. 207), in digestive tube of *Lumbricus festivus*; *A. vulgaris* **sp. n.** (p. 208), in digestive tube of *Eisenia foetida*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.; *A. pilosa* **sp. n.** (p. 88) from oligochaete *Criodrilus* of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci., N.S. **192** 1949 : 87–102 figs.

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*Anoplophryopsis* **gen. n.** *ovata* **sp. n.** (p. 213) (genotype), in *Lysidice ninnetta*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

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*Bütschliellopsis* **gen. n.** *enchytrei* **sp. n.** (p. 216) (genotype), in digestive tubes of Enchytridae, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Centrophorella longissima* **sp. n.** (p. 636) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.; *C. grandis* **sp. n.** (p. 60), *C. faurei* **sp. n.** (p. 61), *C. trichocystus* **sp. n.** (p. 62), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.

*Cheissinella* **gen. n.** *enchytraei* **sp. n.** (p. 228) from Oligochaete worms, Germany, MEIER Arch. Protistenk. **100** 1954 : 212–245 figs.

*Chilodonella macrostoma* **sp. n.** (p. 255) Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Cirrophrya* **gen. n.** *haptata* **sp. n.** (p. 295) fresh water, Hungary, GELLÉRT Ann. Biol. Univ. Szeged. **1** 1950 : 295–312 figs.

*Coelosomides tessieri* **sp. n.** (p. 67) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Corlisia* **gen. n.** *picta* **sp. n.** (p. 65) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Cryptopharynx multinucleatum* **sp. n.** (p. 65), *C. kahli* **sp. n.** (p. 65), *C. enigmaticus* **sp. n.** (p. 65) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Curinostoma* **gen. n.** (p. 201) (**comb. n.** for *Dogielella renalis* Kay) from excretory tubule of gastropod *Ferrissia peninsulae*, U.S.A., KOZLOFF J. Protozool. **1** 1954 : 200–206 fig.

*Dasytricha hukuokaensis* **sp. n.** (p. 367), in stomach of *Bos taurus* var. *domesticus* (Japan), HUKUI & NISIDA Zool. Mag. Tokyo **63** 1954 : 367–369.

*Dichilium sphagni* **sp. n.** (p. 262) pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Discotricha* **gen. n.** *papillifera* **sp. n.** (p. 183) sand, France, TUFFRAU J. Protozool. **1** (3) 1954 : 183–186 figs.

*Durchoniella* **gen. n.** (p. 115) [listed as *D. brasili* (Leger & Duboscq *(pars)* 1894)], in intestine of *Audouinia*; *D. cirratuli* **sp. n.** (p. 123), in intestine of *Cirratulus cirratus* (Müll.), PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Ellipotothigma* **gen. n.** *limnodrili* **sp. n.** (p. 239) from Oligochaete worms, Germany, MEIER Arch. Protistenk. **100** 1954 : 212–245 figs.

*Faurea* **gen. n.** *arenicola* **sp. n.** (p. 636) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.; *F. mirabilis* **sp. n.** (p. 64), *F. ornata* **sp. n.** (p. 64) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Geleia gigas* **sp. n.** (p. 60), *G. tenuis* **sp. n.** (p. 60), *G. major* **sp. n.** (p. 60), *G. swedmarki* **sp. n.** (p. 60), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.

*Glaucoma* Ehrenberg 1830; review thereof, CORLISS **246;** *G. frontata*; status thereof, CORLISS **242.**

*Gruberia binucleata* **sp. n.** (p. 57) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Helicoprorodon maximus* **sp. n.** (p. 62), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.; *H. barbatus* **sp. n.** (p. 62) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Hemiophrys bivacuolata typica* (Kahl, 1930) **nov. comb.** (p. 250) ; *H. bivacuolata* **forma nov.** *polysaprobica* (p. 250) moss pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Herpinella* **gen. n.** *enigmatica* **sp. n.** (p. 215) (genotype), in digestive tube of *Cirratulus filiformis*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Hoplitophrya henleae* **sp. n.** (p. 217) from Oligochaete worms, Germany, MEIER Arch. Protistenk **100** 1954 : 212–245 figs. ; *H. variabilis* **sp. n.** (p. 196), *H. tubificis* **sp. n.** (p. 196), *H. lumbriculi* **sp. n.** (p. 196) from oligochaete worms of Japan, KATASHIMA Zool. Mag., Tokyo **59** 1950 : 196–199 ; *H. lituiformis* **sp. n.** (p. 91) from oligochaete *Criodrilus* of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci. N.S. **192** 1949 : 87–102 figs.

Hoplitophryidae ; systematics thereof, PUYTORAC **1031.**

*Intoshella limnodrili* **sp. n.** (p. 22) from Japanese earthworms, KATASHIMA Zool. Mag. Tokyo **61** 1952 : 22.

Intoshellinidae ; systematics thereof, PUYTORAC **1031.**

*Juxtaradiophrya* **gen. n.** (p. 150) [genotype *J. kochi* (Heidenreich 1935)] *J. näisensis* **sp. n.** (p. 153), in *Näis obtusa*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Lacrymaria kahli* **sp. n.** (p. 63), *L. balechi* **sp. n.** (p. 63), *L. multinucleata* **sp. n.** (p. 63), *L. rotundata* **sp. n.** (p. 63) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs. ; *L. delamarei* **sp. n.** ( p. 634), *L. trichocystus* **sp. n.** (p. 634) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.

*Lionotus elongatus* **sp. n.** (p. 67) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Loxophyllum psammophillus* **sp. n.** (p. 59), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs. ; *L. pseudosctigerum* **sp. n.** (p. 66), *L. variabilis* **sp. n.** (p. 66), *L. lanceolatum* **sp. n.** (p. 67), *L. fibrillatum* **sp. n.** (p. 67) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Maupasella pheretimae* **sp. n.** (p. 22) *M. cylindri* **sp. n.** (p. 22) from Japanese earthworms, KATASHIMA Zool. Mag., Tokyo **61** 1952 : 22 ; *M. cepedei* **sp. n.** (p. 161) [includes *M. nova* Cépède (*pars*) 1910], in *Allolobophora savignyi*, etc. ; *M. herculei* **sp. n.** (p. 168), in *Lumbricus herculeus* ; *M. algeriana* **sp. n.** (p. 169), in intestine of *Helodrilus schneideri* ; *M. multistriata* **sp. n.** (p. 170), in *Allolobophora savignyi*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Metaradiophrya gigas* **sp. n.**(p. 138), in intestine of *Allolobophora savignyi* ; *M. heidenreichi* **sp. n.** (p. 141), in intestine of *Helodrilus schneideri* ; *M. varians* **sp. n.** (p. 142), in intestine of *Eisenia foetida* ; *M. bifulta* **sp. n.** (p. 145), in intestine of *Helodrilus schneideri*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Metastomum vastum* **sp. n.** (p. 96) from oligochaetes of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci. N.S. **192** 1949 : 87–102 figs.

*Nassula bivacuolata* (Šramek, 1946) **nov. comb.** (p. 252) [for *N. elegans* var. *bivacuolata* Šramek, 1946] moss pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Paramecium silesiacum* **sp. n.** (p. 258) Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs. ; *P. aurelia* : ninth variety thereof, BEALE **75.**

*Prorodon arenarius* **sp. n.** (p. 633), *P. trichocystus* **sp. n.** (p. 633) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs. ; *P. microstoma* **sp. n.** (p. 207) from meat digestion plant ; with list and characters of related spp., STOUT Trans. Roy. Soc. N.Z. **82** 1954 : 199–211 figs. ; *P. penardi* **sp. n.** (p. 63) from sand, France, DRAGESCO Bull. Soc. Zool. Fr. **79** 1954 : 62–70

figs. ; *P. multinucleatus* **sp. n.** (p. 58), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.

*Protoradiophryopsis* **gen. n.** *ochridensis* **sp. n.** (p. 93) from oligochaete *Criodrilus* of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci. N.S. **192** 1949 : 87–102 figs.

*Ptychostomum magnum* **sp. n.** (p. 237) from Oligochaete worms, Germany, MEIER Arch. Protistenk. **100** 1954 : 212–245 figs. ; *P. filiferum* **sp. n.** (p. 209), *P. longinuclei* **sp. n.** (p. 209), *P. canalis* **sp. n.** (p. 209) from Japanese earthworms, KATASHIMA Zool. Mag. Tokyo **61** 1952 : 205–209 figs.

*Radiophrya sagittata* **sp. n.** (p. 220) from Oligochaete worms, Germany, MEIER Arch. Protistenk. **100** 1954 : 212–245 figs. ; *R. ovata* **sp. n.** (p. 196), *R. communissima* **sp. n.** (p. 197), *R. rara* **sp. n.** (p. 197), *R. ozakii* **sp. n.** (p. 198) from Japanese oligochaetes, *Pheretima* spp., KATASHIMA Zool. Mag. Tokyo **59** 1950 : 196–199 ; *R. olivieri* **sp. n.** (p. 109), intestine of *Pachydrilus* (Enchytridae) ; *R. elongata* **sp. n.** (p. 112), in *Enchytreus albidus* ; *R. biacuta* **sp. n.** (p. 113), in digestive tubes of *Näis obtusa*, PUYTORAC Ann. Sci. nat. Zool. (11) **16** 1954 : 85–270 figs.

*Radiophryopsis* **gen. n.** *acanthostephanos* **sp. n.** (p. 92) from worms of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci. N.S. **192** 1949 : 87–102 figs.

*Remanella microstoma* **sp. n.** (p. 636), *R. caudata* **sp. n.** (p. 636) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs. ; *R. gigas* **sp. n.** (p. 57), *R. swedmarki* **sp. n.** (p. 58), *R. faurei* **sp. n.** (p. 58), *R. trichocystus* **sp. n.** (p. 58), *R. minuta* **sp. n.** (p. 58), marine, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 57–62 figs.

*Sieboldiellina ochridensis* **sp. n.** (p. 98), *S. acetabulifera* **sp. n.** (p. 98), *S. sphaeronucleata* **sp. n.** (p. 99) from Triclada of Lake Ochrida, GEORGEVITCH Glas Acad. Serbe Sci. N.S. **192** 1949 : 87– 102 figs.

*Spathidium sphagnophilum, latistomum* **spp. n.** (p. 248) ; *S. ampulliforme* **sp. n.** (p. 249) moss-pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Stegochilum sphagnetarum* **sp. n.** (p. 262) pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

*Tetrahymena pyriformis* confused with *Colpidium striatum*, and their differentiation, CORLISS **241.**

*Trachelocerca lacrymariaes* **p. n.** (p. 634), *T. aragoi* **sp. n.** (p. 634), *T. gracilis* **sp. n.** (p. 634) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.

*Trachelostyla dubia* **sp. n.** (p. 69) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

## (b) Heterotrichida

*Balantidium coli* : revision of structure and cytology ; taxonomic status (includes *B. suis*), AUERBACH **42.**

*Colpidium* : differentiation of spp., CORLISS **239.**

*Condylostoma enigmatica* **sp. n.** (p. 68), *C. minuta* **sp. n.** (p. 68) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Nyctotherus rhinocrici* **sp. n.** (p. 60) from Brazilian Myriapod, MELLO Pap. Rep. Zool. Sec. Agric. S. Paulo **11** 1954 : 57–59 figs. ; *N. scinci* **sp. n.** (p. 126) from N. African skink, with list of other spp. recorded from reptiles, PUYTORAC Bull. Soc. zool. Fr. **79** 1954 : 121–127 fig.

*Stentor* Oken 1815 ; status thereof, HEMMING **552;** validation thereof KIRBY **695.**

*Trachelochaeta* **gen. n.** *bryophila* **sp. n.** (p. 265) pools, Czechoslovakia, ŠRÁMEK-HUŠEK Arch. Protistenk. **100** (2) 1954 : 246–267 figs.

## (c) Oligotrichida

*Diplodinium* Schuberg 1888 (genotype *Entodinium dentatum* Stein 1858) ; added to official list of generic names, OPINION 202 **1.**

*Coxliella massutii* **sp. n.** (p. 87) Spanish coastal waters, DURÁN Publ. Inst. Biol. apl., Barcelona **12** 1953 : 79–95 figs.

*Salpingella decurtata* **var. n.** *joergenseni* (p. 83) Spanish coastal waters, DURÁN Publ. Inst. Biol. apl., Barcelona **12** 1953 : 79–95 figs.

Tintinnids of Spanish coastal waters, DURÁN **333.**

## (d) Entodiniomorpha

[No record].

## (e) Hypotrichida

*Aspidisca hyalina* **sp. n.** (p. 70) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 fig.

*Banyulsella* **gen. n.** *viridis* **sp. n.** (p. 637) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.

*Discocephalus grandis* **sp. n.** (p. 69) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Euplotes quinquecarinatus* **sp. n.** (p. 243) from Hungary, GELEI Ann. Biol. Univ. Szeged **1** 1950 : 242–247 figs.

*Gastrocirrhus adhaerens* **sp. n.** (p. 163) marine, attached, FAURÉ-FREMIET An. Acad. bras. Cienc. **26** (1) 1954 : 163–168 figs.

*Keronopsis arenivorus* **sp. n.** (p. 69) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

*Strongylidium arenicolus* **sp. n.** (p. 637) from sands of Mediterranean, DRAGESCO Vie et Milieu **4** 1954 : 633–637 figs.

*Swedmarkia* **gen. n.** *arenicola* **sp. n.** (p. 69) from sand, France, DRAGESCO Bull. Soc. zool. Fr. **79** 1954 : 62–70 figs.

## (f) Peritrichida

New Peritrichids from Lake Balaton, STILLER **1232.**

New and unusual peritrichid, RAABE **1035.**

*Ambiphrya* **gen. n.** *miri* **sp. n.** (p. 341) on *Nerophis*, Gdynia, RAABE Ann. Univ. M. Curie-Sklodowska **6C** (10) 1952 : 339–358 figs.

*Carchesium aselli* **var. n.** *parvum* (p. 208), *C. polypinum* **var. n.** *epizoicum* (p. 207), *C. limbatum* **sp. n.** (p. 209), all on *Asellus aquaticus*, Lake Balaton, STILLER Hydrobiologia **5** (1–2) 1953 : 189–221 figs.

*Epistylis ovalis* **sp. n.** (p. 161) on *Astacus fluviatilis*, BIEGEL Arch. Protistenk. **100** (1) 1954 : 153–182 figs. ; *E. variabilis* **sp. n.** (p. 198), on *Epeorus* larva, Lake Balaton, *E. elegans* **sp. n.** (p. 201), on abdominal segment of *Asellus aquaticus*, Lake Balaton, STILLER Hydrobiologia **5** (1–2) 1953 : 189–221 figs.

*Gonzeella* **gen. n.** *coloniaris* **sp. n.** (p. 34) from fresh water, Belgian Congo, KUFFERATH Rev. Zool. Bot. Afr. **48** 1953 : 30–34 figs.

*Opercularia crustaceorum* **sp. n.** (p. 167) on *Astacus fluviatilis*, BIEGEL Arch. Protistenk. **100** (1) 1954 : 153–182 figs.

*Pyxidium arboricolum* **sp. n.** (p. 163) free ; *P. longicollum* **sp. n.** (p. 164) free, BIEGEL Arch. Protistenk. **100** (1) 1954 : 153–182 figs.

*Scyphidia infundibula* **sp. n.** (p. 154) on *Cyclops* ; *S. hyalina* **sp. n.** (p. 155) on *Ranunculus aquaticus* ; *S. pseudohyalina* **sp. n.** (p. 156) on *Ranunculus aquaticus*, BIEGEL Arch. Protistenk. **100** (1) 1954 : 153–182 figs. ; *S. littorinae* Issel 1918 : redescription thereof, RAABE **1035.**

*Trichodina hexamera* **sp. n.** (p. 182) and other spp. from fishes of Baltic coast, STEIN Učenye Zapiski LGU [Scient. Notes Leningrad State Univ.] No. 172 (Ser. Biol. Sci. 35) 1954 : 177–184 figs. ; *T. myicola* **sp. n.** (p. 150) in *Mya arenaria*, U.S.A., UZMANN & STICKNEY J. Protozool. **1** 1954 : 149–155 figs. ; *T. spheroides* **sp. n.** (p. 48), *T. trichiuri* **sp. n.** (p. 49), *T. abomae* **sp. n.** (p. 50), *T. inversa* **sp. n.** ( p. 51), *T. cottidarum* **sp. n.** (p. 53) from fishes of Sea of Japan, DOGIEL Trans. All-Union Sci. Res. Inst. of Lake & River Fisheries, Leningrad **27** 1948 : 17–66 figs.

*Vorticella octava* **var. n.** *asellicola* (p. 206), ectozoic on *Asellus aquaticus*, Lake Balaton, STILLER Hyrobiologia **5** (1–2) 1953 : 189–221 figs.

*Zoothamnium horai* **sp. n.** (p. 55) ectoparasitic on Indian mullet, KHAJURIA & PILLAY Rec. Indian Mus. **48** 1952 : 55–58 fig. ; *Z. kahli* **var. n.** *balatonicum* (p. 214), *Z. haplocaulis* **sp. n.** (p. 215), *Z. hyalinum* **sp. n.** (p. 216), *Z. h.* **var. n.** *compactum* (p. 218), all on *Carinogammarus roeseli*, Lake Balaton, *Z. minimum* **var. n.** *major* (p. 212) on

*Corophium curvispinum*, Lake Balaton, STILLER Hydrobiologia **5** (1–2) 1953 : 189–221 figs.

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*Discophrya gessneri* **sp. n.** (p. 195), on *Aphelochirus aestivalis* ; *D. cyathostyla* **sp. n.** (p. 196) on *Helmis maugei* ; *D. laccobii* **sp. n.** (p. 197) on *Laccobius minutus* ; *D. hochi* **sp. n.** (p. 200) on *Helophorus flavipes* ; *D. stammeri* **sp. n.** (p. 202) on *Helochares lividus* ; *D. notonectae* **comb. n.** (p. 204) [for *Acineta notonectae* (Claparède & Lehmann)] ; *D. koeppeli* **sp. n.** (p. 207) on *Hydraena polita* ; *D. hydrochi* **sp. n.** (p. 209) on *Hydrochus carinatus*; *D. lingiufera* **comb. n.** (p. 213) [for *Acineta lingiufera* Claparède & Lachmann 1858] ; *D. molesta* **sp. n.** (p. 217) on *Haliphus fluvicollia* ; *D. laccophili* **sp. n.** (p. 219) on *Saccophilus minutus*, MATTHES Arch Protistenk. **99** 1954 : 187–226 figs. ; *D. buckei* : description of ecologically determined forms, MATTHES **829**; *D. lichtensteinii*; status thereof, MATTHES **828**; *D. piriformis* : possible synonymy of *Podophrya collini*, HULL **625**; *Discophrya* ; systematics thereof, MATTHES **824**.

*Heliophrya rotunda* (Hentschel) **comb. nov.** (p. 145); *H. riederi* **sp. n.** (p. 149) Switzerland & Germany ; *H. erhardi* (Rieder 1936) **comb. nov.** (p. 151), MATTHES Arch. Protistenk. **100** (1) 1954 : 143–152 figs. ; *Heliophrya* ; systematics thereof, MATTHES **825**.

## PROTISTA INCERTAE SEDIS

Parasitic protists (protozoa etc.) of uncertain status : systematic account, POISSON **1010**.

†*Arcoligera danica* **sp. n.** (p. 396) Danian boulder, Germany, WETZEL Jb. Reichsst. Bodenforsch. **66** 1952 : 391–418 figs.

†*Dictyosphaeridium* **gen. n.** *deflandrei* **sp. n.** (p. 406) Danian boulder, Germany, WETZEL Jb. Reichsst. Bodenforsch. **66** 1952 : 391–418 figs.

†*Hystrichosphaera furcata* (Ehrb.) **subsp. n.** *angusta* (p. 394) [for *H. furcata* (Ehrb.) Pastiels 1948 *non H. furcata* (Ehrb.) Wetzel 1933] Danian, WETZEL Jb. Reichsst. Bodenforsch. **66** 1952 : 391–418 figs.

†*Hystrichosphaeridium oligacantha* **sp. n.** (p. 402), *H. o.* **subspp. n.** *stella*, *velatum* (p. 403), *H. o.* **subspp. n.** *granulatum*, *complanatum* (p. 404) [latter includes *H. furcata* (Erhb.) Wetzel 1933 *pars*], *H. seminudum* **sp. n.** (p. 405) Danian boulder, Germany, WETZEL Jb. Reichsst. Bodenforsch. **66** 1952 : 391–418 figs)

†*Pterospermopsis* **gen. n.** (p. **411**, *danica*, **sp. n.** (p. 412), Danian boulder, Germany, WETZEL Jb. Reichsst. Bodenforsch. **66** 1952 : 391–418 figs.